The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad.*]

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MR. JAMES H. CROFTS, STOCK AND SHARE BROKER,
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BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.
BUSINESS negociated in Stocks and Shares not having a general market value.
Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week.
MINES INSPECTED.
BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.

SPECIAL DEALINGS in the following, or part:—

25 Almada, 6s.	100 Ind an Kingston, 10s 3	30 Ruby, £4¾.
50 Bwlch United, 25s.	100 Javali, 6s. 3d	10 Richmond, £16⅞.
30 Carnarvon Cop., 18s	45 Killifreth, £1 10s.	10 Roman Grav., £12½.
50 Callao-Bis, 14s. 6d.	50 Kapanga, 9s.	20 So. Devon, £1 13s. 9d
10 Devon Con., £8.	25 Langford.	50 S. Indian Gold, £1 7 6
50 Devon Friendship, 18s	50 Last Chance, 15s.	10 S.Condurrow, £10 17 6
40 East Caradon, 12s. 6d	25 Leadhills, £1 18s. 9d.	30 So. Darren, £1 10s.
25 East Chiverto n, £2.	30 Marke Valley, £1 6s 3	25 So. E. Wynaad, £1¼
25 E. Roman Grav., 16s	40 Morfa Du, 13s. 9d.	40 S. Penstruthal, 5s.
30 East Van, 16s. 3d.	30 Mona Consols.	100 Santa Barbara, 26s 3d
50 Frontino, £3 16s. 3d.	100 Nouv. Monde, 12s. 6d	30 Tanker. Gt.Con., 10s.
25 Glenrock, £1 8s. 9d.	50 No. Penstruthal, 11s 6	30 United Van Consols
25 Glenroy, 9s. 6d.	50 New W.Caradon, 12s 6	and Glyn, 5s. 6d.
75 Gold Coast, 31s.	25 Pandora, 14s.	15 Walkham Uni., fully
20 Grogwinion, £1¾.	25 Polrose, 15s.	paid, 15s.
20 Gt. South. Mysore, 7s	50 Port Phillip, 5s. 3d.	30 West Phœnix, £1 10s.
100 Herodsfoot, 7s. 6d.	50 Potosi, 15s.	50 West Caradon, 15s.
40 Hingston Down, £1 5	50 P. of Wales, 12s. 6d.	20 Wheal Crebor, £2¾.
5 Indian Queens Consols, 7s. 6d.	100 Parys Copper, 16s. 3d	10 West Kitty, £9.
	100 Pestarena, 5s. 3d.	

*** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
*** SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER, and LEAD SHARES.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

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Devala Moyar.	Indian Kingston.	Rhodes Reef.
Devala Central.	Indian Phœnix.	South-East Wynaad.
Great Southern Mysore.	Indian Trevelyan.	South Indian Gold.
Indian Glenrock.	Mysore.	Tambracherry.
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*** SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER MINES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

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Fortnighly Accounts opened on receipt of the usual cover.
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AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.
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50 Bratsberg, 32s. 6d., fully paid.	25 Frontino, £4.	75 Okel Tor.
25 Bedford United, 34s.	15 Frongoch.	20 Plumas Eureka, £2 13 9
30 Callao Bis, 16s.	100 Goodevere, 23s.	20 Penhalls, 20s. 6d.
100 Carnarvon, 17s. 9d.	20 Gunnislake (Clitters), £3⅛.	60 Pioneer.
40 Copiapo, £2 17s. 6d.	25 Great Holway, £5¼.	100 Port Phillip, 6s.
50 Colorado, £2 8s. 9d.	100 Glenroy, 11s.	75 Potosi, 13s. 3d.
3 Carn Brea.	75 Gold Coast, 31s.	50 Pen-yr-Orsedd, 20s. 6
35 Derwent, 21s.	50 Herodsfoot.	10 Richmond, £16⅞.
2 Dolcoath.	20 Hingston Down, 24s.	20 Ruby, £4⅝.
50 Don Pedro, 8s. 6d.	100 Indian Glenrock, 28s. 9d.	40 Silver Peak, 11s. 9d.
15 Devon Consols, £8.	60 Indian Phœnix.	10 So. Condurrow, £10¾.
100 Dev. Friendship, 19s 6	120 La Plata, 28s. 9d.	70 Tankerville, 10s.
40 Devala-Moyar, 24s. 6d	40 Last Chance, 14s. 6d.	5 Van, £9¾.
50 Devon Great United.	25 Marke Valley, 24s.	50 Wheal Jewell, 11s.
60 Drake Walls, 18s. 9d.	50 New Trumpet.	25 W. Godolphin, £2½. call paid.
100 E. Roman Gravels.	30 New Quebrada, £4½.	10 Wh. Grenville.
150 Echequer, 3s. 9d.		

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.
Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

The position of the TIN market is steadily improving, and, in all probability, there will be a further considerable advance in the price of this metal before the end of the year.
Shares in SOUND TIN MINES should, therefore, be bought at present prices, as many of them are likely to have an early and substantial rise. Those who have followed my advice during the past few months can now realise good profits, and there is still every prospect that higher prices will be reached before long.
I particularly recommend the purchase of shares in—

WHEAL GRENVILLE.	WEST GODOLPHIN.
WEST KITTY.	WHEAL AGAR.

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100 Chnotales.	30 Herodsfoot.	35 Polrose.
50 Carnarvon.	25 Hingston Down.	40 South Devon.
2 Carn Brea.	50 Indian Phœnix.	50 South Penstruthal.
50 Devon Friendship.	30 Kit Hill.	35 South Darren.
70 Don Pedro.	40 Killifreth.	100 Tolima.
2 Dolcoath.	100 Kapanga.	20 West Kitty.
100 Eberhardt.	20 Lead Hills.	50 West Phœnix.
100 East Blue Hill.	50 Lady Ashburton.	70 West Polbreen
55 East Van.	New West Caradon.	55 West Godolphin.
20 Frongoch.	25 New Kitty.	100 West Crebor.
50 Gawton.	40 Okel Tor.	20 Wheal Coates.
50 Glenroy.	100 Pestarena.	100 Wheal Jewell.
75 Gold Coast	50 Prince of Wales.	100 Oregum.

SPECIAL BUSINESS in West Polbreen, Wheal Agar, West Kitty, Penhalls, New Kitty, Parys Copper, Goginan, Dolcoath, and Gawton.

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Mr. REYNOLDS recommends the purchase of shares in the following Mines, viz.:—
WEST KITTY, WEST POLBREEN, NEW KITTY.
He has, however, no orders on hand to sell any shares in the above, and must refer immediate buyers either to the London or Cornish markets. Mr. Reynold's object in giving this intimation is for the purpose of securing an advantageous advertisement for a future time. Mr. Reynolds has persistently and publicly in every way recommended West Kittys since they were at 20s. per share. ANY ORDERS TO BUY which may be sent to Mr. Reynolds will have to stand over until SELLERS favour him with instructions.

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Shares specially recommended, viz—Parys, West Caradon, New West Caradon, Polrose, West Crebor, Sortridge, Eberhardt, Nouveau Monde, La Plata, and Langford. Some of these shares are likely to advance in price many hundreds per cent.
Money invested in each of the above companies will no doubt yield a very handsome average profit within twelve months.
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F. E. W. and Co. strongly recommend an investment in the following companies at present prices:—

Lady Bertha United.	East Chillaton Manganese.	Perran Silver-Lead.
Gunnislake (Cletters).		British & Foreign Boat Lowering.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,
29, BISHOPSGATE STREET, LONDON, E.C. (Established 28 Years),
Can SELL the following SHARES at prices annexed:—

100 Almada, 6s. 3d.	20 Langford Silver and Copper.	40 Parys Corpora., 16s.
40 Bedford Unit., £1 15	50 Last Chance, 17s.	50 Quartz Hill, 25s.
25 Birdseye Ck., £1 16s 3	25 Marke Valley, 24s.	10 Richmond, £16⅞.
75 Brazilian Gold, 18s. 9	100 Lady Ashburton, £½.	50 Rhodes Reef, 15s.
100 Bwlch United.	10 Minera.	25 Ruby, £4 15s.
25 Colorado, £2 10s.	100 Nouveau Monde, 13s 9	50 Royalton.
75 Callao Bis, 16s. 3d.	50 N. Trumpet Con.	20 South Darren, 28s. 9d
150 Chontales, 3s.	50 New West Caradon, 10s. 6d.	40 So. Indian, £1 8s.
50 Dev. Friendship, 20s.	40 New Kitty, £2 2s. 6d.	50 Tankerville, 10s. 6d.
50 Don Pedro Gold, 8s.	40 New Kitty, £2 2s. 6d.	40 Tambracherry, £1 1 3
40 Emma, £2 10s.	25 Marke Valley, 24s.	75 Tin Hill, 18s.
50 Herodsfoot, 8s.	50 Mysore Gold, £1 6s. 3	40 United Van and Glyn 5s. 6d.
80 Hoover Hill, 13s. 9d.	40 Pioneer, 19s.	50 Wheal Jewell, 12s. 6d (call paid.)
50 Indian Glen., 28s. 9d.	50 Potosi, 13s. 9d.	60 West Crebor, 10s.
40 Indian Phœnix, 18s 9	40 Prince of Wales. 14s.	50 West Lisburne, 19s
40 Indian Trevel., 13s. 9d	50 Penberthy Crofts, off. wanted.	50 Wheal Jane, 27s. 6d.
100 Kapanga, 9s.		
40 Kit Hill, 17s.		
50 La Plata, 31s.	150 Port Phillip, 5s. 3d.	

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FOR
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GRANVILLE SHARP, STOCK AND SHARE DEALER,
32, QUEEN VICTORIA STREET, LONDON, E.C.,
Recommends the purchase of shares in SOUND TIN MINES.
In consequence of the generally improved and improving condition of Trade and Commerce, assisted by the continued reduction of the stocks of Tin, the market for that metal has been, and is still, steadily improving, with good prospects of a further 40 to 50 per cent. advance.
SHARES in all SOUND TIN MINES are certain to advance proportionately.
GRANVILLE SHARP specially recommends the purchase of shares in the EAST CHIVERTON SILVER-LEAD MINE, it being on the eve of proving a very valuable property, as evidenced by the recent important discovery in the 90 fm. level driving west, where is a course of rich silver-lead ore already proved for nearly 30 fms., and has opened up in a few weeks reserves valued at £5000 to £6000 between that (90 fm.) level and the level over. A 50-ton parcel of the ore sold recently for £13 per ton. EAST CHIVERTON MINE is on the same lode which in the mine immediately west produced between the years 1863 and 1872 silver-lead ore that realised very nearly HALF A MILLION STERLING, and between 1875 and 1880 LEAD and BLENDE ORES amounting to £110,000. These facts can be verified by the books in Mr. Granville Sharp's possession, at 32, Queen Victoria-street, E.C.
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The following Shares are FOR SALE at prices affixed, unless price advances or shares are withdrawn:—

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70 Wheal Jane, 16s. 3d.	200 W. Craven Moor, offer	20 South Crebor, £1.
25 Bodidris, 20s.	125 Wheal Jewell, 10s.	5 Van, £9½.

* HERODSFOOT.—A lower offer may be accepted for these, as holder is unable to meet further expected calls.
FOR SPECIAL SALE AT NET PRICES—200 Great Southern Mysore, in One Lot (£1 paid), 8s. 7d. 200 Herodsfoot, 6s. 9d.
FOR SPECIAL SALE. OFFERS CAN BE MADE:—

25 Callington Consols.	10 Hornachos, £3 paid.	20 Tramways Trust.
200 Gold Mining Association of Canada.	50 Sentein.	50 Yorkshire Discount.
	50 Silver Peak.	

BUYERS of Grenville, Tamar, South Crebor, Carn Camborne, and Carnarvonshire Great Consols. Sellers please state lowest price.

MR. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
139, LEADENHALL STREET, LONDON, E.C.,
The following SHARES are FOR SALE at prices affixed:—

100 Bratsberg.	40 Devon Great United (£1 5s. paid). £1	90 So. Devon Uni., 33s. 6
95 Devon Friendship, 19s. 6d. (£1 paid).	60 Hoover Hill, £1 paid, 13s. 9d.	70 Sortridge Con. (£1 paid), 17s.
100 Frongoch (offer).	110 Pen-yr-Orsedd, 17s 6d	20 Van, £9½.

TO SHAREHOLDERS—FOR SPECIAL SALE AT NET PRICES:—
100 BODIDRIS (£1 paid), 8s. 9d.
55 GREAT POLGOOTH UNITED, £1 paid, 12s.
FOR SPECIAL SALE. OFFERS CAN BE MADE.

50 Carn Camborne.	400 Great Southern Mysore, £1 paid.	260 Old Shepherds, 12s. 6 paid.
270 E. Wh. Rose, £1 pd,	340 Mounts Bay.	25 South London Trams.
100 E. Wheal Rose, 12s 6d paid.	20 North London Suburban Trams.	300 Central Wynaad.
100 Gold Mining Association of Canada.	45 Tamar Silver-Lead, £1 0s. 6d.	50 Wynaad District.
195 Indian Queens.	125 Parka Mines.	110 Tresavean.
50 Lady Ashburton.		240 Gold Mining Trust

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N.B.—Copy of Articles of Association, with contract, for One Shilling.

Moelfre Lead Mining Company

(LIMITED).

Incorporated under the Companies Acts of 1862 to 1880, whereby the liability of shareholders is absolutely limited to the amount of their shares.

CAPITAL £25,000, IN 25,000 SHARES OF £1 EACH.

Of which 6000 Shares are reserved as part payment to the vendors.

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Deposit on application 2s. 6d. per share, 2s. 6d. on allotment, and the remainder as required in calls not to exceed 2s. 6d. per share, and one calendar month at least must elapse between each.

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In Manchester: Messrs. BOWMAN BROS., Hopwood Avenue, Market-place, Manchester.
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CAPTAIN (pro tem.)—Mr. RICHARDS, Caersws, Montgomeryshire.

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ABRIDGED PROSPECTUS.

This company is formed for the purpose of acquiring a valuable lead mining property situate near Llanidloes, Montgomeryshire, and for working the extensive and valuable lodes, proved to be of immense width and strength, and in the same stratification as the celebrated and lucrative Van Lead Mines. The property comprises the mining lease of the extensive and valuable minerals under the Moelfre Estate for 23 years from the 1st January, 1881, subject to a small royalty of one-fifteenth per cent. of the gross sale of ore. No fixed or dead rent being payable in respect thereof. To an investor this adventure can in no sense be compared to an old worked-out mine, of which so many instances are frequently brought before the public. No eulogy is necessary, but the fullest personal inspection is invited. The recent important improvements have enhanced its value. The vendors are the promoters of the company, and the purchase-money has been fixed by them at £8500, of which £2500 is to be paid in cash and £6000 in fully paid-up shares, which includes all agency, brokerage, printing, and all legal and other expenses incident to the formation of the company, and generally of all preliminary expenses whatsoever incurred in relation to the company up to the incorporation thereof.

The only contract is one dated the 6th day of September, 1881, and made between James Richards and John Hunter, of the one part, and the Moelfre Lead Mining Company (Limited) of the other part; and, with the Memorandum and Articles of Association and reports on the property, are open to inspection at the office of the company's solicitors.

Prospectuses, reports, and forms of application can be had at the bankers, brokers, solicitors, or at the office of the company.

In the event of no allotment being made the deposit money will be returned; and, as there is already a great demand for shares, application should be made early therefor.

Mr. F. T. WHITEHEAD, F.G.S. and M.E., says:—Taking into consideration the geological position of the Moelfre Estate, which lies exactly in the same lithological formation as the Van, Brynpostig, and other lodes in the district, the richness and large quantity of lead ore in the flookan and other parts of the lodes, although proved so near the surface, together with the dip and lay to, I am of opinion this mining property is one of great value.

Mr. HENRY FRANCIS, of Llanidloes, an eminent mining captain, says:—When it is considered that these rich and really fine appearances present themselves at such a shallow depth, there is a certainty in my mind of these appearances being in close proximity to a large body of lead ore, and according to my experience, extending now over a period of 44 years, in the whole course of which I have never found a lode of this magnitude and character to fail if properly developed, and I can only again repeat that when you have attained a deeper point upon this lode you may most fairly and reasonably expect to find a rich lode.

Capt. JOHN ROGERS, a mining captain of great experience, says:—That never in all his experience did he see ground more congenial for producing mineral, and considers the property, if developed, will prove of immense value.

Mr. PETER BRADBURN, M.E., says:—The sett comprises and embraces several lodes in formation similar to that in which the rich deposits of ore have been discovered in the celebrated Van Mines. The mine has been proved by cutting of two levels; the first one enters the foot of the hill, and cross-cuts a lode of from 30 to 40 ft. in width; the other cutting enters a lode of rather large dimensions. I got several very good specimens of the stone-bearing ore, and am of opinion that this will prove a good mine.

Mr. J. A. FRASER, of Carnarvon, says:—The geological stratification is the same as that of the celebrated Van Mine. I find there are two lodes on the property. The lower one has been intersected by a shallow adit, is very wide. There is also a small caunter lode running N.N.E., and may be termed a feeder to the lower main lode. I have frequently seen mineral lodes bearing strong bunches or strings of lead on the surface, but which diminished or are squeezed out in depth; I, therefore, prefer general indications of improvement in depth, such as are contained in the lodes on this property.

The richness of the mine in depth may turn out equal to that of the great Van Mine, being in the same stratification, and possessing equally as good indications on the surface.

Mr. JAMES ROACH, of the United Van Consols and Glyn Mine, reports:—There is another lode ahead of the drivage alluded to. Here you will get under cover about 50 to 60 yards in perpendicular height; consequently, I strongly recommend the cross-cut being driven to meet that lode.

N.B.—Since this advertisement has been in type an entirely new lode has been discovered, as indicated in the following notice, which appeared in the *Mining Journal* of Nov. 5:—"Mr. James Richards, of Newtown, telegraphs (Nov. 4) that at the Moelfre Mine an important discovery has been made. They have intersected a new lode, and as far as cut into there is lead throughout. Further advice will be sent when cut through. A sample of the ore is at the company's office."

Registration of New Companies.

The following joint-stock companies have been duly registered:—

THE SEA STEAMSHIP COMPANY (Limited).—Capital 200,000*l.*, in shares of 100*l.* To carry on the business of shipowners, merchants, and brokers. The subscribers (who take one share each) are—J. Eills, Liverpool; W. Eills, Liverpool; B. W. Eills, Liverpool; R. Read, Liverpool; A. Leslie, Newcastle-on-Tyne; A. Coote, Newcastle-on-Tyne; J. Henderson, Durham.

THE CRYSTAL PORCELAIN POTTERY COMPANY (Limited).—Capital 50,000*l.*, in shares of 5*l.* To manufacture and sell porcelain and other ceramic ware, and any kind of pottery or earthenware. The subscribers are—N. Tronson, 62, King William-street, 30; C. Reilly, 23, St. Swithin's-lane, 30; J. P. Rickman, 17, St. Bride-street, 30; J. B. Kennett, 2, Cushion-court, 30; A. Sandeman, 20, St. Swithin's-lane, 30; E. Page, Temple, 30; A. Plant, Hanley, 10.

THE BARNOLDSWICK CLOUGH MILLS COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.* To purchase certain cotton mills and continue the business attached thereto. The subscribers are—H. Slater, Barnoldswick, 100; T. S. Edmondson, Barnoldswick, 25; J. Slater, Barnoldswick, 50; M. Widdup, Barnoldswick, 25; J. Widdup, Barnoldswick, 10; J. Butler, Barnoldswick, 25; G. Kendall, Skipton, 1.

THE MOOKHAMCHERRA TEA COMPANY (Limited). — Capital 50,000*l.*, in shares of 10*l.* To acquire by purchase several tea estates situate in the province of Assam, India, and to cultivate the same. The subscribers (who take one share each are)—R. R. Buchanan, 57, Gracechurch-street; R. Richardson, Chester; A. W. J. Grant-Thorold, 3, Grosvenor Gardens; P. Butler, 40, Queen's Gate-terrace; C. P. R. Butler, 57, Gracechurch-street; A. Bryans, 57, Gracechurch-church-street; P. J. Burt, 21, Leadenhall-street.

THE LONDON MARITIME ASSOCIATION (Limited).—Capital 20,000*l.*, in shares of 5*l.* To carry on the business of shipowners, brokers, agents, insurers, merchants, &c. The subscribers (who take one share each) are—A. Tyler, Carshalton; L. Lewis, Cardiff; W. L. Bright, Rochdale; H. Kirkhouse, Pontypridd; H. Morse, Derby; E. Manser, Hertford; F. W. Millett, 13, Milner-square.

THE TREDEGAR STEAMSHIP COMPANY (Limited). — Capital 20,000*l.*, in shares of 200*l.* To carry on a shipowners' business, limited to one vessel at a time. The subscribers (who take one share each) are—P. Moore, Penarth; T. J. Williams, Cardiff; T. Stone, Penarth; E. D. Holdaway, Cardiff; W. Lewis, Cardiff; R. J. Gibbs, Cardiff J. A. Gibbs. Cardiff.

THE BRITISH AND NEW ZEALAND MORTGAGE AND AGENCY COMPANY.—Capital 600,000*l.*, in shares of 10*l.* To carry on the business of a land and mortgage company in all branches. The subscribers (who take one share each) are—J. W. Barclay, Reform Club; J. Meston, Aberdeen; J. W. Temple, 34, Leadenhall-street; H. J. Gibbs, 1, Great Winchester-street; J. Leslie, 79, Mark-lane; W. Saville, 34, Leadenhall-street; W. A. Hunter, Temple.

UNION LAND COMPANY (Limited).—Capital 150,000*l.*, in shares of 10*l.* To purchase or otherwise acquire land, and to carry out schemes of lighting, drainage, waterworks, &c. The subscribers (who take one share each) are—G. A. Lucas, Camden Town; W. T. Lesanteur, 149, Dalston-lane; A. Vickers, Hackney; F. P. Strickland, Champion Hill; R. A. Reeve, Stoke Newington; J. A. Daw, Stamford Hill; W. Chamberlain, 72, Herne Hill-road.

THOMAS BROTHERS AND COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* To acquire and carry on a paper and millboard manufacturing business at Temple Mills, Bisham, Berks. The subscribers (who take two shares each) are—J. T. Thomas, Bisham; J. Thomas, Wooburn; J. Thomas, Lower Norwood; E. Thomas, Wooburn; E. Thomas, Great Marlow; S. A. Thomas, Bisham; F. Thomas, Weston-super-Mare.

NEW CAMBRIAN MINING AND SMELTING COMPANY (Limited).—Capital 115,000*l.*, in shares of 2*l.* To acquire all the undertaking, mines, property, estates, assets, and effects whatsoever of the Cambrian Mine Company (Limited). To work and develope this or any other mining property; to crush, smelt, or otherwise render marketable the ore or other produce, to sell the same, and generally to carry on the business of a mining and smelting company in all branches. The subscribers (who take one share each) are—T. Adams, Manchester, engineer; R. Girvin, Reigate, merchant; S. Gray, St. Leonards, esquire; J. C. Monkhouse, Ayr, landowner; M. Macgregor, Dalkeith, clergyman; J. F. Beaumont, Royston, farmer: W. Davies, 25, Camden Park-road, clerk. The first directors are—Messrs. Adams, R. W. Lodwick, and Stanton Gray.

THE ANGLO-GENERAL ELECTRIC LIGHT COMPANY (Limited).—Capital, 24,000*l.*, in shares of 1*l.* To manufacture and sell machinery, apparatus, engines and material connected with electricity or dynamo-magnetic machines. The subscribers (who take one share each) are—G. A. Hemming, 4, Three Crown-square; E. C. Reaney, 21, Upper George-street; J. Payne, 4, Three Crown-square; J. A. Clark, 12, Guildford-street; T. W. Leaver, 133, Gray's Inn-road; W. A. Church, Lewisham; W. Williams, 13, King-street.

THE WESTINGHOUSE BRAKE COMPANY (Limited).—Capital, 500,000*l.*, in shares of 10*l.* To acquire a certain patent and manufacture railway brakes, rolling stock, engines, wagons, &c. The subscribers are—G. Westinghouse, King's Cross, 1000; H. W. Tyler, Edmonton, 500; F. Penny, 4, Bank Buildings, 1000; T. B. Smyth, 76, Onslow Gardens, 500; S. Laing, 5, Cambridge Gate, 100; R. Jackson, Rochdale, 200; W. Hopper, Riverside Bows Park, 100.

THE CALORIC ENGINE AND "SIREN" FOG SIGNALS COMPANY (Limited).—Capital, 100,000*l.*, in shares of 10*l.* To carry on the business of engineers, founders, and smiths. The subscribers (who take one share each) are—W. C. Cross, Peckham; F. Howard, Bromley; F. Grant, Islington; H. S. Foster, 3, Copthall-court Buildings; C. Ingrey, Fulham; W. Hope, 16, George-street, Mansion House; J. Mason, 6, Arthur-street Chambers.

THE BURNLEY AND DISTRICT TRAMWAYS COMPANY (Limited).—Capital, 100,000*l.*, in shares of 1*l.* To construct, maintain, and work local tramways. The subscribers (who take one share each) are—E. Price, Stoke Newington; L. Stein, 4, Copthall Buildings; E. C. S. Hely, 2, Copthall Buildings; J. Duncan, 4, Copthall Buildings; R. Fennelly, Tottenham; T. Selby, 10, Finborough-road; W. R. Bacon, 1, Great Winchester-street.

THE CENTRAL NORTHUMBERLAND RAILWAY COMPANY (Limited).—Capital, 600,000*l.*, in shares of 10*l.* To construct, lay down, and work a railway, with or without branches. The subscribers (who take one share each) are—C. E. Trevelyan, Wallington; J. Swinburne, Capheaton; R. C. Ellison, Whickham; T. H. Lambton, Fenton; J. Robinson, Newcastle-on-Tyne; W. Forster, Rothbury; E. Carr, Whickham.

THE EAST LONDON DISCOUNT AND GENERAL FINANCE COMPANY (Limited).—Capital, 30,000*l.*, in shares of 10*l.* To carry on the business of bill discounters, bill brokers, and financiers. The subscribers (who take 25 shares each) are—A. W. Basham, 282, Kingsland-road; G. Soly, Edmonfon; W. Mitchell, Curtain-road; C. H. Mason, 86, Curtain-road; S. Tysack, Stoke Newington; J. B. Burnard, Dalston; H. J. F. Gale, Ponder's End.

THE SHIPOWNERS AND MERCHANTS AGENCY (Limited).—Capital 50,000*l* in shares of 10*l.* To lend money, build and insure ships, &c. The subscribers (who take one share each) are—F. C. Champion, 71, Cornhill; O. Lofthouse, 68, Cornhill; T. H. Sawyer, 147, Finborough-road; W. B. Lofthouse, 4, Cullum-street; T. B. Williams, St. Ives; W. R. Wright, 10, Moorgate-street; W. E. Bagshaw, 10, Moorgate-street.

THE LONDON FIBRE COMPANY (Limited).—Capital 5000*l.*, in shares of 10*l.* To purchase the goodwill and carry on the business of the firm of A. Steele and Co. The subscribers are—E. Ayres, 21, Hyde Park-place, 80; J. A. Penny, Brixton, 10; A. Pearsall, 66, Basinghall-street, 2; A. J. Pearsall, 66, Basinghall-street, 2; R. L. McAlpin, 94, Southwark-street, 2; W. H. Golds, 15, St. Swithin's-lane, 2; J. Graystone, 44, Fentiman-road, 2.

THE WEST END DIAMOND MINING COMPANY OF DUTOITSPAN (Limited).—Capital, 210,000*l.*, in shares of 10*l.* To purchase or otherwise acquire claims or other interests in the Dutoitspan Mine, Griqualand, South Africa, and the right to dig and search for diamonds and precious stones; to dig, mine, and search for diamonds, minerals, corals, and to carry on as well the business of diamond merchants, brokers, and diamond cutters. The subscribers (who take one share each) are—C. J. Posno, 19, Finsbury-circus, merchant; G. Brown, Brentwood, secretary; H. J. Gidney, 65, Beresford-road, solicitor; P. Horley, 19, Finsbury-circus, clerk; J. Senton, 59, Crowndale-road, accountant; C. Davies, 19, Finsbury-circus, clerk; A. E. Sydney, 46, Finsbury-circus, solicitor. No Articles of Association have been registered.

THE NORTH WALES FREEHOLD LAND CORPORATION (Limited).—Capital 50,000*l.*, in shares of 1*l.* To carry on all the business of a land company. The subscribers are—J. Taylor, Rhyl, 100; T. Gee, Denbigh, 100; W. Williams, Rhyl, 100; T. Jones, Anfield, 100; J. Spence, Tamworth, 100; E. Hunt, Tamworth, 100; T. Roberts, Manchester, 1; R. E. Jones, Manchester, 1.

WOHLFAHRT LEAD MINES (Limited),—Capital 120,000*l.*, in shares of 1*l.* To develope and work certain lead mines situate in the Rhine provinces of Prussia, and to purchase or otherwise acquire those or any other mines, mining rights, ground and minerals of every description, or the concessions thereof, and sell and dispose of the ores, metals, minerals, and metallic substances, together with their products respectively, and generally to carry on the business of a lead mining company in all its branches The subscribers (who take one share each) are—F. Wall, 23, Upper Wimpole-street, barrister; E. C. Owen, 13, Gloucester-terrace, barrister; F. J. Bolton, 19, Grosvenor Gardens, lieutenant-colonel; C. A. Moreing, 34, Clement's-lane, M.E.; H. Schmidtmann, 4, the Sanctuary, engineer; P. A. Scratchley, 4, The Sanctuary, barrister; F. Wynne, 5, Westminster Chambers. The first directors are—The Right Hon. L. Playfair, Sir J. B. Darvall, Colonels F. E. Beaumont, F. Bolton, and Messrs. J. Dodds and A. C. Ramsay, the qualification being fixed at 500 shares

THE GLASGOW OPEN STOCK EXCHANGE (Limited).—Capital 50,000*l.*, in shares of 1*l.* The purchase and sale by auction or otherwise of stocks, shares, debentures, bonds, bills, concessions, coupons, &c. The subscribers (who take one share each) are—T. A. Reid, Kilmarnock; C. Frielinghaus, 21, Finsbury Pavement; C. T. R. Wilkins, 8, Finsbury-circus; A. D. Knapp, 50, Old Broad-street; R. L. Allport, 9, Fenchurch Buildings; J. A. Bains, South Shields; J. Chamberlain, Pentonville.

HIGHER TRANMERE HIGH SCHOOL FOR GIRLS (Limited).—Capital 5000*l.*, in shares of 5*l.* To establish and maintain a public school. The subscribers are—M. L. J, Mortimer, Tranmere, 10; R. Knowles, Tranmere, 5; P. H. Cotter, Tranmere, 2; T. A. Lowe, Tranmere, 5; G. Bucklebank, Tranmere, 5; J. H. McGarl, Tranmere, 5; T. Morris, Tranmere, 10.

THE LANDS AND BUILDING SYNDICATE (Limited).—Capital 1,000,000*l.*, in shares of 5*l.* To carry on the business of a building and land society in all branches. The subscribers (who take one share each) are—S. Robson, Little Ilford; A. McCulloch, jun., Chiswick; J. Keys, 44, Romilly-road; M. D. Darke, 2, Agnes-street; T. B. Roughton, Barnsbury; F. W. Bell, 60, Sussex-street; J. M. F. Erskin, 20, Robert-street.

JOHN LYSAGHT (Limited).—Capital 500,000*l.*, in shares of 50*l.* To purchase and carry on the business of a manufacture of corrugated iron, situate at Bristol, Wolverhampton, London, and Melbourne. The subscribers (who take one share each) are—J. Lysaght, Springfort; A. Petter, Bristol; J. L. Press, Bristol; G. W. W. Webb, Bristol; R. Dodd, Wolverhampton; J. B. Hollom, Bristol.

TRAMWAYS: THEIR CONSTRUCTION AND WORKING.

The introduction of tramways has now become so general that many engineers devote themselves almost exclusively to that branch of the profession, so that Mr. D. Kinnear Clark's supplementary volume just published by Messrs. Crosby, Lockwood, and Co., of Stationers' Hall Court, will be widely appreciated, since it embraces a comprehensive history of the system, with an exhaustive analysis of the various modes of traction, including horse-power, steam, heated water, and compressed air; a description of the varieties of rolling stock, and ample details of cost and working expenses, with special reference to the tramways of the United Kingdom. The work is systematically divided into three parts, treating respectively of the general cost of tramways of the United Kingdom and their working expenditure; of the construction of tramways; and of the mechanical power. In the first part a summary of the costs and expenditure of tramways is followed by chapters on the capital and working expenditure of the North Metropolitan, London, London Street, Glasgow Corporation, and Edinburgh Street Tramways respectively. The second part comprises chapters giving a chronological summary of tramway construction and detailed descriptions of the systems of Kincaid, Wilson, Aldred-Spielmann, Truswell, Vignoles, Deacon, Shaw, Makison, Dugdale, Winby and Levick, Kerr, Meakins, Page, De Feral, Gowans, Macrae, Johnstones and Rankine, and Brunton, the twentieth chapter being devoted to general conclusions on the construction of tramways. In treating of mechanical power for tramways in the third part the chapters deal with resistance to traction, Merryweather and Sons tramway locomotives, Hughes's tramway locomotive, the Grantham steam car, Perrett's steam car, Brown's steam tramcar, German tramway locomotives, Francq's fireless or hot-water locomotive, and the compressed air locomotives of Mékarski and of Beaumont.

The general conclusions on mechanical power which Mr. D. K. Clark draws are that the eventual superseding of horse power by mechanical power on tramways is a foregone conclusion, but that the best form of engine for mechanical propulsion has yet been attained is open for discussion. Steam power, he continues, as yet takes the lead, and it ought to keep the lead so long as power is generated by means of fuel and water, and their product steam. It is remarkable, nevertheless, that compressed air should be employed as an intermediary between steam and engine wheels with such a degree of ultimate efficiency as apparently to run the direct steam powered tramway engine very closely. For all that there is a marked contrast between the quantity of fuel consumed in drawing 1 ton of gross weight one mile on the two systems. Whilst the Merryweather engine moves 1 ton one mile by the consumption of 0·69 lb. of coal, the Mékarski engine consumes 1·75 lb. of coal for the same work, or more than 2½ times as much as the direct steam-engine. This is a solid fact, and whilst such a contrast can be maintained it needs but little argument to prove that the direct steam powered tramway engine is, as it ought to be, the more economical. It is, at the same time, worth while to point out that in an economical sense the lower maximum pressures for compressed air as a motive power are pre-

ferable to higher maximum pressures. The standard of 30 atmospheres adopted by Mékarski, for instance, is preferable to the standard of 66 atmospheres adopted by Beaumont. The reason is obviously that the less the degree of compression practised on the air the greater is the available efficiency under ordinary conditions derived by its converse expansion. Of the steam tramway engines now in practice the Merryweather engine is the only one which has established a reputation for doing good work economically. The reason is not far to seek. Whilst Mr. Merryweather has avoided literal and unimaginative reproductions of railway locomotive practice, or new fangled forms of boilers and gearing, he has, on the contrary, utilised the well sifted experience of railways by special adaptation to tramways, superadding thereto the means of satisfying the peculiar requirements of noiselessness, vapourlessness, smokelessness, and handiness. Throughout the volume Mr. Clark has discussed the several questions which present themselves with thoroughness and impartiality, and has thus produced a work alike valuable for reference and for study.

PRIZES FOR TECHNICAL ESSAYS.

There are probably few honours which are more highly prized by professional men than the premium and other distinctions awarded by the Institution of Civil Engineers, and as most of these honours are open to non-members as well as members of the Institution, the details of the prizes open will be of general interest. The Council invite communications of a complete and comprehensive character on any of the subjects included in the subjoined list, as well as on other analogous questions. For approved original communications the Council will award premiums, arising out of special funds bequeathed for the purpose, the particulars of which will enable candidates to determine which they can compete for with most probability of success. First, there is the Telford Fund, left "in trust, the interest to be expended in annual premiums, under the direction of the Council." This bequest (with accumulations of dividends) produces 260*l.* annually. Then there is the Manby Donation, of the value of about 10*l.* a year, given "to form a fund for an annual premium or premiums for papers read at the meetings." The Miller Fund was bequeathed by the testator "for the purpose of forming a fund for providing premiums or prizes for the students of the said Institution, upon the principle of the 'Telford Fund.'" This fund (with accumulations of dividends) realises 160*l.* per annum. Out of this fund the Council have established a scholarship, called "The Miller Scholarship of the Institution of Civil Engineers," and are prepared to award one such scholarship, not exceeding 40*l.* in value, each year, and tenable for three years. Next comes the Howard Bequest, which was directed by the testator to be applied "for the purpose of presenting periodically a prize or medal to the author of a treatise on any of the uses or properties of iron, or to the inventor of some new and valuable process relating thereto, such author or inventor being a member, graduate, or associate of the said Institution." The annual income amounts to rather more than 16*l.* It has been arranged to award this prize every five years, commencing from 1877. The next award will, therefore, be made in 1882. The Council will not make any award unless a communication of adequate merit is received, but will give more than one premium if there are several deserving memoirs on the same subject. In the adjudication of the premiums no distinction will be made between essays received from any one connected with the institution (except in the cases of the Miller and the Howard bequests, which are limited by the donors), or from any other person, whether a native or a foreigner.

The subjects upon which papers are invited are:—1. The adoption of a standard test-piece for bars and plates.—2. The mechanical and other properties of iron and steel; and the effect produced by tempering steel in oil and in water, with a description of the testing machinery.—3. The behaviour of iron and steel under ordinary loads, and up to the limit of elasticity.—4. The methods of protecting metal work exposed to corrosion, with examples.—5. The modern practice of bridge building in Germany, especially with reference to the details of construction and the substitution or bar and angle iron for wide flange-plates.—6. The action of high winds on lofty and exposed structures, and the best methods for determining the force of the wind.—7. The comparative cost of transport by land and water.—8. The works carried out on the Continent of Europe and in North America for the improvement of rivers and of inland navigation generally.—9. The methods used for determining the discharge of rivers, with a description of the floats and current meters employed for the purpose.—10. River conservancy; including a description of the physical conditions of the district, and the cause, effect, and means of prevention of floods.—11. The location and construction of the most difficult portions of the several Pacific railroads.—12. The elevated street railroads of New York.—13. Continuous railway brakes.—14. Mechanical power on tramways, including steam, compressed air, electricity, &c.—15. A review of recent hydraulic experiments.—16. Investigation as to the quantity of water yielded by the chalk formation.—17. The analysis of water for potable purposes, having special reference to the method of estimating "previous sewage contamination."—18. The design and construction of covered service reservoirs for town water supply.—19. The sewering of towns on the separate system, by the exclusion of the surface waters.—20. The utilisation of the mechanical power of the tide and of the current of rivers.—21. The type of steam-engine best adapted for ordinary factory purposes, in respect to economy in the first cost and in cost of maintenance, as well as in the use of steam.—22. The best method of testing steam-engines (independent of their boilers), having regard to the accuracy of the results and ease with which the tests can be carried out.—23. The modern practice in the design and construction of boilers.—24. On magneto-electric and dynamo-electric machines, with their relative advantages.—25. The generation, storage, and transmission of electric energy, the purposes to which it may be applied, and the sources of loss.—26. The methods and appliances for storing, weighing, and delivering grain in and from granaries.—27. The various systems of grinding wheat, and the machines used in corn-mills.—28. The different systems of refrigerating machinery, and appliances for the preservation and transport of provisions.—29. The utilisation of waste products in different manufacturing processes.—30. The methods and machinery employed for separating the impurities from coal as carried out in South Wales, in connection with the manufacture of coke for the iron and steel trades.—31. The application of hydraulic power to machine tools.—32. Drilling and riveting machinery for girder work.—33. The different systems of lifts in use in warehouses and in dwellings.—34. The latest development of the compound marine engine.—35. The special construction of vessels for the reception of railway trains on deck, indicating the arrangements for the shipping of such trains on their own wheels at various states of the tide.—36. The methods and machinery employed in sinking and in working deep coal mines.—37. Coal depôts for ocean steamers, the various points involved in their management, and the preservation of the coal from deterioration.—38. The methods employed in securing large and irregular-shaped mineral workings; for example, the Almaden Mines, the Great Comstock lode, &c.—39. The manufacture of lead and the extraction of silver.—40. Instruments for measuring the velocities of vehicles, of prime movers, and of wind and water meters.—41. The distribution of heat over large areas from a central source of supply.—42. The methods and appliances for blasting rocks under water.—43. The management of underground waters in mining districts, and the relative economy of distributed or trunk pumping-engines, adits, &c., in particular cases.—44. On proportioning mains for the distribution of water and of gas. And—45. Forces and strains of recoil considered with reference to the elastic field gun-carriage.

The essays must be written in the third person, and be legibly transcribed on foolscap paper, one side only, leaving a margin on the left side in order that the sheets may be bound. Every paper must be prefaced by an abstract not exceeding 1500 words in length. Illustrations, when necessary, should be drawn on tracing paper, to as small a scale as is consistent with distinctness, and ready to be engraved. When an illustrated communication is accepted for reading a series of diagrams will be required sufficiently large and boldly coloured to be clearly visible at a distance of 60 ft. These diagrams will be returned. Papers which have been read at the meetings of other societies, or have been published in any form, cannot be read at a meeting of the Institution, nor be admitted in competition for the premiums. The communications must be forwarded to the secretary of the Institution, from whom any further information may be obtained. There is no specified date for the delivery of MSS., as when a paper is not in time for one session it is dealt with in the succeeding one.

NEW GREAT WHEAL VOR.

SPECIAL REPORT OF Mr. WILLIAM McCULLOCH, C.E.

[Messrs. H. F. McCulloch and Sons, Civil and Mining Engineers, Gresham House.]

To the Directors of the New Great Wheal Vor Tin Mining Company (Limited).

Gentlemen—On Monday, Oct. 31, in company with Mr. Morgan and others, I visited the mine, and partially surveyed both it and the adjacent property. On the following day (Tuesday) we completed the survey, and on both occasions were greatly indebted to Captain Chappel, of Helston, and to Mr. Johns, agent to H.R.H. the Prince of Wales. The intelligence and local knowledge of both these gentlemen proved of great assistance to us.

In April last Mr. Johns, whose rare faculty of discernment in mining matters is well known, made the following report on the New Great Wheal Vor:—

"This is one of the best-defined properties in Cornwall, and contains the undermentioned lodes:—No. 1, the South lode, formed in branches varying from 4 in. to 13 in. in width, and is highly productive. No. 2, Little Bounds lode, a branch very similar to the south lode, and very rich for tin. No. 3, Tregarth's lode, highly mineralised. No. 4, Gwins or Pressure lode, a champion lode of the district, 3 ft. to 6 ft. wide, and very rich. No. 5, Bar or Polladras lode, a continuation through Penhale and Crevatt's sett. The south, the Little Bounds, and the Tregarth lodes underlie 3 feet in a fathom, and the Penhale underlies north 3 ft. in a fathom, and will ultimately form a junction in depth with the south lode. At the point of junction a large deposit of tin will be found, for the geological formation is precisely similar to that of all the great mines in the district. There are other lodes lying north that will verge into the east of the setts, prominent among them is the Great Margaret lode, which lies north of the above named. It has a south underlie, which was once enormously rich in Great Work Mine, and was worth 200*l.* per fathom. I am convinced that there is here one of the most valuable mining properties in Cornwall, and upon a small outlay you will secure profits equal to those realised in the district in former times."

At this later date nothing can be added to this exhaustive report, except it be to say that the actual operations have fully confirmed all that Mr. Johns foresaw and indicated, and that the brilliant anticipations which his report created have been more than realised.

The measurements of the New Great Wheal Vor sett show that the total length on the line of the lode upon which the great discovery of tin has been made is 430 fms., the distance from the western boundary to No. 1 shaft being 25 fms. This shaft No. 1 is 8 fms. deep, and from it was produced the first pile of rich tin ore. It is called a foot-way or ladder shaft.

When the important discovery of tin ore was made Capt. Cowling wisely determined to follow the rich deposits laid bare by driving east and west upon the line of the vein which had been struck until shaft No. 2 should be reached. These works proved highly productive, and when at a depth of 8 fms. from the surface No. 2 shaft was actually reached the lode was worth from 34*l.* to 40*l.* per fm. The agent then resolved to sink further upon the lode, and in prosecuting this operation he came upon the grand discovery of which so much has been heard. The eastern shaft is now sunk about 11 fms. from surface, and the lode continues not only to yield rich ore but to improve every foot that is sunk. It is estimated that the lode is already worth 80*l.* per fm.

Two adits have been driven, the northern for 18 fms. and the southern for 8 fms. in depth.

Nine fathoms to the north of No. 2 there is another shaft called the Northern or Perpendicular shaft 10 fms. below the adit. This shaft will drain the whole of the mine, and from it cross-cuts can be driven north and south to intersect all the lodes traversing the sett. This shaft was sunk before the company entered into possession of the property, and will prove of great advantage in many ways.

The surrounding district and the special geological features of this particular property are so well known that it is not necessary for me to dwell upon the anticipations of great wealth which they have called forth; but it is desirable to note that several distinct and well-defined lodes traverse the company's sett, and the same happy results which have followed the sinking on the first lode may fairly be expected on each of the remaining six. Should this anticipation be realised—and of it there is no doubt—the New Great Wheal Vor will undoubtedly be one of the grandest mines which in our generation has been opened out by the enterprise of man.

It is important also to note (as per sketch, which may be obtained at the office) that the whole distance between the eastern (No. 2) shaft and the eastern boundary, which is 394 fms., is whole ground, and has never been previously worked. All its natural wealth, therefore, remains undisturbed.

I have conferred with Capt. Cowling, your agent on the spot, and I fully concur with him that it will be best to place the dressing-floor to the south-west of shaft No. 2, and to erect the machinery between shaft No. 2 and the Perpendicular shaft, which lies about 30 fathoms to the north.

I am highly gratified with the results of the survey, and believe you have here one of the richest tin mines that has been discovered for many years.—William McCulloch.

THE METALLIFEROUS MINES REGULATION ACT.

IMPORTANT GOVERNMENT PROSECUTION.

At the Penrhyn Petty Sessions, before Messrs. A. O. Williams and D. Ll. Lloyd, the Volteg and Bowydd Slate Quarries Company (Limited), Mr. F. S. Percival, managing director; G. Jenkins and Lloyd Jones, agents, were summoned by Mr. E. Le Neve Foster. This was a prosecution instituted by the Inspector appointed under the Metalliferous Mines Regulations Acts against the defendants, as the owners and agents in respect of a continuing offence, laid under the 55th special rule prescribed by the Act of Parliament for the conduct and guidance of persons acting in the management and of all persons employed in and about the defendants' mine. The offence charged was a contravention of that part of the rule which provided that "Every dangerous pathway and road in the mine should be securely fenced," and the contest between the parties really arose as to the word "dangerous." Mr. Cartwright, of Chester, appeared for the prosecution, which, he said, was taken under the direct authority of the Home Secretary. The defendants, it was said, were summoned together for the reason that Mr. Jenkins had ceased to be the manager of the mine just prior to the accident presently referred to—the offence charged being a continuing one, the new manager became a necessary party, and the Act providing that the owners and agents were each liable, it became necessary to bring all the parties concerned before the Court, and particularly so as it might turn out that the managers themselves were not responsible, inasmuch as the materials necessary to erect the fence which it was said in the present case was necessary, had not been supplied to them. It appeared that the tramroad in question was approached through a tunnel; it was, in fact, a ledge overhanging a working below some 30 yards deep, and its extreme width varying, according to the evidence of the several witnesses, from 6 ft. to 9 ft., the wagons used on the tramroad, it was also said, over-reached the ledge. The tramroad led from the tunnel before mentioned to the face of a slate chamber in the course of being wrought—some considerable distance from it.

The Inspector, Mr. Foster, having given technical proof of the incorporation of the company, its returns to him, and the appointment of the two agents, produced some correspondence from the manager, Mr. Percival, in which the latter set up the freedom from danger of the tramroad to the quarrymen. Mr. Foster produced a rough wooden model, showing the ledge in question, and he gave it as his deliberate opinion that the tramroad was not only dangerous to the persons generally working in the mine, but especially so to the man or men engaged in wagoning on the road. Mr. Casson, of Portmadoc, also appeared for the defendants, challenged this evidence, and cross-examined Mr. Foster thereon. A man named John Jones was then put into the box. He had his head covered round with a white cloth, and appeared to be in a very weak condition. He said he was engaged under Mr. Wm. Owen, of the adjoining quarry company (the Maen Offeren Quarry), in dragging a chain to measure certain boundary work, on Sept. 10 last, and had passed through the tunnel out upon the tramroad. There was a good deal of smoke, and, as he was passing up to the face of the working, he fell over into the chamber below, being caught by a projection ledge and saved from a fall on the floor of the chamber beneath. He became insensible, and did not recollect anything further that happened. Witness admitted, upon being cross-examined, that he had been told by the man working in the bargain to be careful of the ledge. He said the place was dangerous. Mr. William Owen, manager of the Maen Offeren Slate Quarry, said that the man Jones had been acting under his directions, and, in his opinion, the tramroad was a dangerous place and should be fenced.

Mr. Casson then called Richard Rowlands, Jenkins, and Evans, the agents, and Robert Roberts, the charterer of the bargain. They all deposed that the place was safe for old and experienced quarrymen, and that the mine had been worked by the use of similar ledges ever since it had been a work, but none of the witnesses would swear that it was a safe place to young or inexperienced quarrymen not working in that particular chamber. Mr. Casson contended that it was impossible to work the quarry without these ledges, that the Act and rules only contemplated a liability in respect of accidents and dangerous places to the persons working in the mine, and that Jones being, in fact, a trespasser, they were not liable to the present information, and he raised these questions as points of law. It was replied that the special rules were prepared so as to prevent "dangerous accidents," and there was no limit attached to those words, but in truth the accident to Jones was beside the question, except that it strengthened the argument that the ledge was a dangerous place. Was the ledge a dangerous place to persons working in the mine? The defendants' evidence, it was submitted, proved it to be so. It must not be dangerous to any person working in the mine.—The justices retired to consider their judgment, and on returning to court Mr. Williams said they should impose a fine of 10*l.* and costs, including the advocate's fee, as against the company and all the defendants.

MANCHESTER INTERNATIONAL EXHIBITION.

Ever fertile in suggestion, Mr. Ellis Lever, of Bowdon, whose name has been long and honourably known to the readers of the *Mining Journal*, now proposes a Grand International Exhibition of the Industrial Arts, Manufactures, Fine Arts, Scientific Inventions, Discoveries, and Natural Products of all countries, to be held in Manchester in 1882, and from the evidence which he adduces that the time and place are suitable and desirable, and that such exhibitions are remunerative to the inhabitants of the cities in which they take place, there is a good prospect that the suggestion will be adopted. Mr. Ellis Lever expresses his conviction that such an exhibition, held in Manchester, would not only be an immense success both financially and nationally, but that it would also be a great boon to Manchester and its district. He points out that Manchester is the centre of a vast population, collectively rivalling even the Metropolis itself, and that the productions and manufactures of the County Palatine and adjoining counties are more numerous and diversified than those of all other portions put together; and the wealth and enterprise are a sufficient guarantee for its success. He remarks, moreover, that the present state of the industries of the district, and the nature of many of its products and handicrafts, may be adduced as special and very strong reasons why the proposed exhibition should be held in that great industrial centre where the millions of its artisans may have ample opportunities of visiting the exhibition again and again, and of learning the lessons which such a collection must inevitably teach.

One of Mr. Ellis Lever's leading objects appears to be the provision in Manchester of a museum or institution of the South Kensington class, not as a rival to that national institution, but worthy of the manufacturing metropolis of the kingdom and suited to the needs both technical and artistic, of her working population. Such a permanent institution might be purchased out of the surplus profits of the Exhibition, and the nucleus of a collection could also be formed by a portion of the exhibits. He anticipated that at present, as in 1857, a number of gentlemen of position and public spirit will be prepared to assist in carrying it out, and of insuring for it that success which, in his opinion, it deserves. The mayor of Manchester has already expressed his entire approval of the projected exhibition, and his example will doubtless be generally followed. The pamphlet which Mr. Ellis Lever has published (Manchester Guardian), contains a succinct history of the various exhibitions from the beginning of the century, and will afford interesting reading even to those who have no special connection with Manchester and its welfare.

Florida Land and Colonisation Company.—The pamphlet just issued by this company for the information of intending emigrants contains an interesting account of the attractions of the lands in Orange and Alachua countries, in "the Italy of America" which the company has for sale. The lands in Orange county are in the Sanford grant, the company acquiring title by deed from General Sanford, and the town of Sanford established on the grant is a terminus of the South Florida railroad, which is being rapidly extended to the Gulf of Mexico, and a glance at the map certainly indicates that the time is not distant when a line from Sanford to near Orange Lake will give the town railway communication with the West India Transit Railway and Fernandina for the mail steamers to New York and Boston, or place Sanford within 45 hours of New York by railway, by getting rid of the 20 hours mail trip on the St. John's river from Jacksonsville. The orange culture is perhaps the most regular and remunerative industry, one grove of 4½ acres having averaged 937*l.* per annum net for the past eleven years, but lemons, limes, olives, almonds, pine apples, guavas, and all other semi-tropical fruits are also grown profitably. The company also own land in the Aredondo grant in Alachua county, on the line of the West India Transit Railway, and therefore much more favourably situated.

Satires and Enigmas.—The second edition, enlarged, of the poems embodying an amusing series of Semi-Political Satires and Enigmas respecting Ireland, Afghanistan, and the Transvaal, by J. I. Whitty, D.C.L., L.L.D., M.A. Oxon., and Trinity College, Dublin, has just been issued (London: H. Vickers, Strand), and in connection with recent events in Ireland especially, will be read with pleasure by all who take any interest in politics, no matter what party they may belong to. Although keen and tranchant the style is in no case offensive, whilst the glossaries appended to each satire will enable them to be appreciated by all. The book is certainly entitled to a wide circulation.

Peruvian Bonds.—It appears that important intelligence for Peruvian bondholders has just been received from Valparaiso. The loading of superior guano from the Tarapaca deposits (now in possession of Chili) is going on briskly on account of the bondholders, and since the previous advices 30,000 tons of shipping have been chartered to load at Pabellon de Pica, Huanillos, and Punta de Lobos, and loading stages are being erected at other virgin deposits on the rainless coast of Tarapaca, so as to admit from 1500 to 2000 tons a day being loaded, and the supply is said to be practically inexhaustible. The 40,000 tons sold by Gen. Lynch in Lima is said to be of inferior quality, owing to rain falling on the deposits of Lobos Afuero and Lobos Atierra, upwards of a thousand miles to the northward of Tarapaca, and which deposits, in the event of peace being concluded between Chili and Peru, now daily expected to take place, will revert to Peru, Chili only claiming by right of conquest the province of Tarapaca and the adjoining strip of debatable coast-line from the River Loa to the desert of Atacama, hitherto claimed by Bolivia. The writer adds that this sale of Lobos guano at a little over 2*l.* a ton *in situ* gave rise to the ridiculous report that Chili intended to repudiate her contract with the bondholders. The fact is that the bondholders may be said to have had really no claim whatever on this sale, these northern deposits being liable at any moment to be given up to Peru in the event of peace being ratified, as Chili lays no claim to any territory beyond the province of Tarapaca in the south, where the only rich deposits of guano and nitrate of soda really exist. Nevertheless, it is thought that after the royalty of 30*s.* a ton is deducted from this extraneous sale the balance of 19*s.* or 12*s.* a ton will still, through the generosity and honourable feeling of Chili, be credited to the bondholders.

Gold Mining in Victoria.—The reports of the mining surveyors and registrars for the quarter ended June 30 state that 38,473 miners were employed; of these 13,976 Europeans and 8316 Chinese were employed in alluvial mining, and 16,086 Europeans and 95 Chinese in quartz mining. The number of distinct quartz reefs proved to be auriferous was 3619, and 1240½ square miles of ground have been actually worked upon. The quantity of gold got was 79,779½ ozs. from alluvial, and 127,010½ ozs from quartz = 206,790 ozs. The reports of the several inspectors are almost without exception more favourable.

Montanistischer Kalender.—For several years past Fromme's admirable little Miner's Calendar — Fromme's Montanistischer Kalender für Oesterreich-Ungarn—has been rapidly increasing in favour, and as it is at once concise and practical it is in every respect worthy of recommendation to miners. To Germans such a work is indispensable, and from the extent of the tables of logarithms of common numbers, and of trigonometrical lines and angles with the formulae in which they may be used it will prove almost equally valuable to Englishmen. The volume is but 6 in. by 3in., and half an inch thick, so that it can be conveniently carried in the pocket, yet contains all the notes of reference the practical miner is likely to require. There

are extensive weight tables for iron, copper, brass, lead, and zinc; plates, tubes, cylinders, round and square rod iron, cast shot, &c., for the running metre, which will be found extremely useful, and there is an excellent list of publications during 1880 and 1881 of interest to the mining community. The calendar reflects great credit upon its editor, Dr. Victor Wolff, the secretary of the Austrian Mining and Iron Industrials Union, and is well deserving of extensive circulation. It is published in Vienna by Mr. Fromme, and may be obtained in this country through Messrs. Trübner, of Ludgate Hill.

FOREIGN MINES.

ST. JOHN DEL REY.—The directors have received the following telegram from Morro Velho, dated Rio de Janeiro (date not given): Produce for the month of October, 28,500 oits., value, 11,045*l.*; yield, 5·4 oits. per ton.

QUARTZ HILL.—Telegram received from our confidential agent: 32 ozs. troy, and 8310. Mill has run 20 stamps this week.

TOCOPILLA COPPER AND SMELTING.—The registration of this company's title to the properties in Bolivia has now been fully completed, and the arrangement with vendors, as described in the prospectus, has been carried out.

LA PLATA MINING AND SMELTING.—Smelting statement for the week from Oct. 9 to Oct. 16: Ore purchased, 1068 tons; ore smelted, 696 tons; silver produced, 20,220 ozs.; lead produced, 163 tons; silver-lead bars consigned to refiners, 167 tons; value of consignments, $33,369; equal to 6951*l.*

— Cablegram from New York received Nov. 10: The net profit for the month of October is $17,250·40, equal to 3593*l.* 16s. 8d.

LAST CHANCE.—Telegram from the agent at Salt Lake:—"We have during last week run 23 ft. in opulent. A good seam of rich ore near the footwall of 10 in. thick. We have now at sampling mill 10 tons first-class ore."

RICHMOND CONSOLIDATED.—Telegram received from the mine at Eureka, Nevada, Nov. 8: "Week's run, $43,000, from 880 tons of ore. Refinery, $40,000. Total depth in ore on incline, 50 ft.; now flattening out northwards."

— R. Rickard, Oct. 19: North drift from Lizette cross-cut has been advanced 8 ft in the same character of ground. The 200 north has been extended 9 ft. without any change to mention. The 200 south has been drifted 9 ft. in firm limestone. The 200 west has been extended 12 ft. in favourable ground. A winze has been started from the bottom of the 200 south from west drift in ledge matter, low-grade ore with bunches of galena, and looks very favourable to open out to pay-ore shortly. The 300 north drift has been advanced 12 ft. without any change. The 400 north from No. 11 chamber has been extended 7 ft. in hard limestone. Last week a drift was started east from the 600 north from No. 14 chute, and after drifting 30 ft. a small cave was encountered, showing some good pieces of galena and carbonate ore on the sides; after clearing out the debris from the bottom of the cave we found a floor of good carbonate ore. Not sufficient work has been done to ascertain the size, but at present it shows a breast of 8 ft. of good ore; and, judging from the appearance, it is nearly certain to open out to a large ore body. This is undoubtedly the continuation in depth of the large ore chambers found above this level; and the fact of it making below the 600 is of great importance, and cannot be too highly appreciated, as no ore of any value has been found below the 600 level. The 700 east has been drifted 10 ft. without any change. The 1200 cross-cut has been extended 22 ft., a total distance from the shaft of 114 ft., the end is still in quartzite.

EBERHARDT.—The following advices are from Capt. Drake: 6000 ft. Drift.—Has been without material change for the last few weeks. The small change in the rock we have met with is in its hardness, showing silicious element. A change that may take us into ore may now come at any time, as we are so near the centre of the hill. 2000 ft. Drift West—In our driving we are still in quartz, carrying chlorides of silver, showing more of quartz than we have at any time come upon, and I look for a higher quality to come in soon; some days it shows exceedingly favourably. 2000 ft. Drift East—The ore in this section of the ground has been very singularly deposited, being imbedded in the lime rock, independent of any fissures or breaks in the surrounding rock. In other words, the ore is difussed through the lime. My opinion is that we are working within a large ore channel, but not in the richest part of it. Where there is so much quartz found in the lime rock it leads me to believe that we will be able to discover the source or larger deposits of which our present are but a part, and find larger bodies than any yet met with. The method I have adopted in prospecting this ground is to follow the ore in whatever direction we may find it. In reference to this prospect work, I can make these statements—1. We have a good respectable amount of quartz.—2. In most of the quartz we find chloride of silver.—3. We find some high grade ore.—4. The general character of this rock I consider good to contain mineral of a higher grade than we have yet found.

RUBY AND DUNDERBERG CONSOLIDATED.—Report on the mines fo the week ended Oct. 16: Dunderberg: The No. 7 ore body, below the 700 ft. level, continues without any change; at present the ore is about 4 ft. wide, of fine grade. The north shait from No. 2 chamber, 30 ft. below the 600 ft. level, has been advanced 15 ft. during the week; total 29 ft. A small seam of good ore was encountered in this drift a few days ago, which is improving daily; at present it is 2½ ft. wide, and looks very promising, and I believe that the continuation of the No. 2 ore body will be found in this direction. The No. 6 ore body, below the 600 ft. level, is very poor, and is not producing ore of any value at present. The drift from No. 6 winze, 30 ft. below the No. 6 ore body, is now connected with No. 6 chamber; the ore at this point also is very low grade, a small portion of it only is of any value. A drift has been commenced in a northerly direction from the bottom of No. 6 winze, which is 90 ft. below the 600 ft., and at the top of the upraise, 600 ft. above the 700, this drift is in very favourable looking ground, containing small bunches of good ore. The object of this drift is to prospect for the No. 6 ore body at a lower point. Have 32 men and 10 tributers, and have shipped 48 tons of ore this week.—Bullwhacker: There has not been any work done on the 400 ft. level this week; work will be resumed again in a few days. The north stope above the 325 ft. level is looking well, and producing all the ore taken from the mine at present. Have shipped 34 tons of ore this week, and have five men at work.

— Copy of telegram received from Eureka, Nov. 3: The week's run from the furnace was $13,000, from 242 tons of ore, producing 37 tons of bullion. The shipments of the week were 150 tons.

EUREKA (NEVADA) SILVER.—Report on mines for the week ended Oct. 17: Bald Eagle: The 150 ft. west drift has passed through a fissure containing low grade ore and iron, which is now being followed both ways (north and south) on the course of the fissure. The north end is in very promising-looking ground for ore; the progress this week 13 ft. south and 24 ft. north from the west drift. The 150 ft. north drift is in favourable ground for drifting; progress this week 24 ft.—total, 70 ft. from the east drift. This drift will be continued 10 or 15 ft. further, when connection will be made with the north end and bottom of the old ore chamber. Repairing the main incline is progressing rather slowly—progress this week 10 ft.; total, 105 ft. below the 150 ft. level. We have nine men at work.—Williamsburg: The ore in the stopes between the first and second levels is somewhat smaller. We have about 10 tons of ore ready for shipment, and have four men at work.

DON PEDRO.—Mine captain's report, dated Oct. 10. Drainage: In consequence of the breakages referred to in my last water was at a high horizon, and box or bucket failing; had to be changed on Sunday, since when good progress in forking has been made, until sweep rod broke to-day, jack-head being in fork, and bucket or drop lift connected; anticipate repairs will take 10 hours. Several repairs made in adit level that were imperative.—Explorations: At the outcrop of underlie lode, or rather above it, the branches are of good size, and in apparently firm ground, being a little north-east of the old workings and over the latter, the former workings being about 3 ft. below our present bottom branch, and as these branches are tending, as far as can be seen, so far north-east I hope they will extend some distance; samples from same, and some 5 tons treated, leads us to presume the lode is of good quality, but by next mail I hope to be able to write more fully thereon.

— Telegram, dated Rio, Nov. 9:—"Surface explorations 600 oitavas."

ISABELLE (Gold and Silver).—Lewis Chalmers, Oct. 23: I have now to report for the information of the board that the addition to the Exchequer mill to receive the vats and tanks for the successful treatment of the ore are all but completed; all the vats on the ground, 16 of set set up, five more to put together, the frame of the agitators finished, and that I expect the agitators from San Francisco to be here this week. I can not say exactly what day I can commence running, but I hope within three weeks. I have had to rebuild assay office and furnace, which were falling down, the foundations having decayed. This is all done. I shall give a full description of the process when I get started; it has been found to be the best, most efficient, and economical mode of reducing gold and silver ores containing a high percentage of copper (the old Augustin process modified). I had 200 lbs. tried by it with good results. You can have no fear of results. I commence on a small scale, 10 tons a day, the additions to the mill being calculated for only that amount.

SENTEIN.—M. Scantlebury, Nov. 2: No. 5 End: We are driving this level in a direct line to communicate with the winze already sunk from No. 4 to St. Barbe level, consequently the preset end is in schist; during the past month the men made very fair progress, having extended the level 16 metres.—No. 4 Level: The end lode is very hard, composed of grey capel and black quartz and spar; I have never seen this end so hard as it is now, the cost for driving will be at least 300 frs. per metre. I would advise the suspension of this end until No. 2 end is advanced further west, for in my opinion if we cannot strike anything good in No. 2 it is not a promising speculation to extend No. 4. In No. 1 rise, above this level, the lode is composed of hard capel and quartz; as this place is very poor, and a great many of our miners are leaving, I think it advisable to suspend this rise for the present. In No. 1 stope, east of No. 1 rise, the lode has fallen off in value, worth at present 1 ton of lead and 1½ ton of blende per cubic fathom; width of lode 10 ft. In No. 2 stope, east of No. 1 rise, the lode is 8 to 9 ft. wide, worth 18 cwts. of lead and 2½ tons of blende per cubic fathom. In No. 1 stope, in back of the said level, the lode is 12 ft. wide, and worth 1¾ ton of lead and 2¾ tons of blende per cubic fathom. In No. 2 stope, in back of the said level, the lode is 10 to 11 ft. in width, and worth 1¼ ton of lead and 2 tons of blende per cubic fathom. No. 3 stope, in back of the said level, the lode is 13 ft. wide, and worth 1½ ton of lead and 2½ tons of blende per cubic fathom.—No. 3 Level: In the rise above this level the lode is very hard, producing lead and blende ore to the extent of 1½ ton per fathom for length and width of rise, 8 ft. by 5 ft. In No. 1 stope, in the back of the said level, the lope is 14 ft. wide, producing 18 cwts. of lead and 3 tons of blende per cubic fathom. In No. 3 stope, in the back of the said level, the lode is 10 ft. wide, worth 10 cwts. of lead and 1 ton of blende per fathom; we have suspended this stope as it will not pay working expenses. In No. 2 stope, in the bottom of the said level, the lode is 15 in. wide, but the best part of this piece of ground is taken away; the ground remaining is worth from 18 cwts. to 1 ton of lead and 2 to 2½ tons of blende ore per fathom.—No. 2 Level: In the end the lode is very small, merely a vein of 2 or 3 in. wide, showing a separation between the limestone and schist. I may add that while the limestone continues there is still a hope of striking something good in this level. In No. 1 stope, in bottom of the said level, the lode is 10 ft. wide, and worth 1½ ton of lead and 3 tons of blende per cubic fathom. During the past three days we have had a heavy fall of snow, on the other hand a great many of our men are leaving, therefore I have not set more than two or three places as yet for the month, as the other men I require to assist in working the cable and clearing the mineral from the mine. There is broken at the mine from 650 to 670 tons of crude ore, and should we have another two weeks of fine weather I hope to get the whole of this ore to the dressing-floors.

— Report for the month of October: Crude ore raised from the mine, 790 tons of 1000 kilos.; crude ore sent from the mine to the dressing-floors, 670 tons of 1000 kilos. Crude ore dressed, 526 tons of 1000 kilos.; ragging ditto and tailings, 100 tons of 1000 kilos.=626 tons. Market lead ore produced, 1st class, 23 tons of 1000 kilos; 2nd class, 20 tons of 1000 kilos.; and blende ore produced, 1st class, 220 tons of 1000 kilos.

PIERREFITTE.—Nov. 5: The manager reports as follows:—The ground in the adit level in the South Mine is very favourable for driving, and as we have a full force of men engaged very good progress is being made. The stope continues to yield good lead ore. In the North Mine six men have been placed to clear up the ore, and fork the water out of the No. 1 winze below the No. 1 level—in order to operate against the cross-cut in the No. 2 level—that the communication may be effected between these two levels at this point as quickly as possible. The ground in No. 2 cross-cut is at present hard for driving. In the No. 3 level the lode, which is disordered by the slide, where they are in contract, appears to be more settled as the end departs from it (the slide), and it yields some good lead ore, but not much yet to value. Fair progress has been made during the past week in cutting the route from the mouth of the level towards the cable. With respect to the stoping, we cannot make satisfactory progress, on account of the mine being filled with ore, and it is thought advisable at present to allow stoping to stand in abeyance a little until we have better advantage to work the stopes. Sample has been taken from 50-ton parcel of lead ore to-day, which will be duly forwarded you. The slime floor of the new crusher, with the eight buddles, small water-wheel, driving gear, &c., are in a forward state of preparation, and we expect to have them all ready to work about the end of the month.

UNITED MEXICAN.—Advices from Mr. Hay, dated Guanaxuato, Oct. 6: Mine of San Cayetano de la Ovejera: The workings discovered on holing in the old workings are—A winze, now called San Francisco, where two paid workmen are at work on ore measuring 70 centimetres in width. The first stone thrown down assayed 55 marks (about 300 ozs. to the ton), but though the ore looks very well I do not expect the same richness for the average of the extraction; and a level, called San Gerardo, where the ore only measures 22 centimetres, seemingly of fair quality—on this strip we have also two paid workmen at work. Some little ore is also thrown down in the contracielo of San Antonio, on a width of 40 centimetres, and some is still found in San Isidora. From the workings here mentioned we shall probably have from 8 to 10 cargas this week.—Mine of El Diamante: During the week ending Oct. 1 we have driven 1·83 metres; total 9·65 metres on that day. The stones that came out last Saturday looked like the ore from San Cayetano; it has a good deal of iron pyrites, bronze, and also undoubtedly traces of silver. In this cross-cut south-west we have found that the good appearance of the end diminishes as we advance, and that it is nearly in an unproductive state; this makes me think that the wall we traversed last week was the reliz (wall of the lode) del alto. To-morrow this will be investigated, and we will then decide on the point from which we are to drive the end north-west.—Mine of San Antonio de la Ovejera: In the frente of San Juan west (deepest working) we have driven during the week ending the 1st inst. 1·27 metres; total, 75·55 metres. The favourable appearance of this end improves daily, as we begin to find here and there stones containing ore. The water is still filtering to this level from the winze of Santa Engracia, and during this week ending on the 1st inst. the level decreased 40 centimetres, and during the present week the decrease is 15 centimetres to the 4th inst.—Mine of Santa Monica: The cross-cut of San Juan south being in the ground lately denounced I have began this week to consider it as belonging to Santa Monica. On the 1st we had driven 1·50 metres; total, 55·35 metres. A strip cut last week has some very good stones, but it is very narrow, still I hope soon to be able to report favourably on this point when we get more ahead to the south.

PLACERVILLE.—T. Price, Oct. 20: The stope between the 5th and 6th levels is supplying nearly all the ore we are now crushing. Some little is being extracted from points between the 4th and 5th levels. The cross-cut in the 7th (700 ft. level) has reached the vein, but it has not been broken into as yet. All that can be said at present is that the vein presents a uniform and regular appearance. Each day now will give us some idea as to the character of the quartz we can expect here. The vein has flattened out considerably—that is to say, it is not so near the perpendicular as it has been. The exact angle cannot be ascertained for a few days, or until we reach the hanging-wall and drifted a little on the vein. I have no opinion to give at this present moment as to our chances, I can only say that the change in the dip of the vein is favourable for change of ground. In the upper levels of the old workings the vein did not have so sharp a dip; in fact, there has been more or less disturbance in the vein from the 3rd level, especially the last two levels—the 5th and 6th. I sincerely hope the change in the angle will also change our luck, and restore us the same kind of quartz as the same dip in the upper levels afforded us. The quartz that we are now extracting between the 5th and 6th levels is not very good, excepting a small seam on the hanging-wall, which same seam continues down in the winze towards the 7th level. The quartz all contains some gold, and the width between the walls is as large, if not larger, than above; the trouble is, the pay shoot is not so long as on the 4th level, and the vein is broken and seamy. There is nothing whatsoever to discourage one that a large and profitable ore body may not be encountered at any moment; besides which, a very small part only of our whole ground has been prospected, and at one point in particular the indications are very favourable indeed for the development of a good pay shoot of ore.

HOOVER HILL.—Extract from letter from resident engineer, Oct. 24: Instead of running down Gallimore we continue to run down from a dump lying in close proximity to Gallimore, and which apparently in times past came from that pit. The particulars of the first clean up were given in my letter of the 27th ult., which you inform me has never reached the office. As requested in your cable, I sent you a copy of it in my last. One addition I have to make to that statement. I have said, "For allowance of free gold in blanket sand 47 ozs." This should read, "For allowance of free gold in blanket, sand, and sulphurets, 47 ozs." The value of these sulphurets and sand was ascertained by assay, and their value added to the free gold obtained. I am making a few test experiments, and will soon be able to give you the results obtained. I have made all the needful preparations to catch the sulphides by having several long sections of blanket flumes; and practically what comes out at the tail end assays but very little. I have all along complained of the shortness of water to run the mill; and our clean up, which I proposrs making after to-morrow's run, will from this cause prove not a high one in quantity treated. The last few days we had some had some rain, but not enough to do any good. The drought for this section has been something without precedent. The drills have been at work in the tunnel nearly a fortnight, and are doing splendid work. As soon as the man in charge has drilled the men to handle the machine alone, he will start sinking Provost. I should have said before, that the compressor with all its attachments, is made to run five drills, and the boiler is in like proportion. The contract price was for three drills only. In Hawkin's trial shaft we have had some heavy ground of late; it has required good deal of heavy timber to keep it open. We are through this treacherous ground, and into moderate hard rock, and soon sufficiently deep to cross-cut out to the dyke. The ground in the tunnel has become harder. The ore now being broken in Gallimore is without change. We are in a hard band of rock, different in texture to that hitherto obtained; but we have indication of a change for the better coming in. But for this excessive hard rock we could get through these temporary changes much quicker. As we go down I presume these changes will not occur so often.

— Nov. 5: Capital improvement bottom of Gallimore Shaft, gold visible throughout rock.

— Nov. 3: October cost sheet sent. Gallimore looking well.

CALLAO "BIS."—Extract from Mr. C. C. Downe's letter of Sept. 19: Azules Mine: In the No. 1 winze we are sinking now almost entirely in bluestone, carrying down with us a strong leader of quartz, showing good colours. Winze No. 2 is being also sunk for the purpose of ventilating the lower workings. I shall in all probability strike water in winze No. 6 in about 10 or 12 ft. further sinking, but at our present depth 108 ft. from the level of the main gallery—no signs of warer are apparent.—Machinery: I regret to tell you that the machinery is not arriving as quickly as I could wish, and owing to the season of the year the roads and rivers are in parts almost impassable. By an almost superhuman effort, however, the vertical boiler for the shaft was floated across the Yuruari river in the cart in which it came up from Las Tablas, the whole being floated upon a raft of 16 soft wood trees felled for the purpose, and hauled from one side of the bank to the other by 15 yoke of oxen. This, I am glad to tell you was safely placed at the shaft's mouth on the morning of the 16th inst., and we shall get to work and fork out the shaft the moment the missing parts and connections of the boiler and engine arrive.

MICHIPICOTEN—John Opie, Oct. 12: During the past two weeks we have cut the ground for timbering Bevan's shaft, and have commenced to collar up. In this shaft within the last two weeks we have found a little copper, but not enough to value. The Swede families have arrived. I may say that they are very clean and well conducted people, and there is no doubt that when they more fully understand their work and can speak a little of our language that they will give the company good service. Enclosed I send you a tracing of section of Quebec Mines. Every effort is being made to put up roofing and coverings, and making preparations for the coming winter.

— Telegram from Mr. Stuart, Nov. 7: "Latest advices from the mine Oct. 28. Progressing satisfactorily. Opie reports opening up a good piece of ground, and lode looking well at Office shaft west."

CANADIAN COPPER AND SULPHUR.—F. Bennetts, Oct. 28: I have the honour to report to you that the mines continue to present the same favourable appearance that they have for some time past. The stope in the 10 fm. level, east of No. 5 shaft, at the Acton mine, has improved in production of copper in the Black Shale. At the Hartford mine the vein in the 70 fm. level, east of No. 5 shaft, is also looking better. There are no other new features to report. The Capelton Smelting Works are working well and increasing in efficiency.

ARENDAL MINING AND SMELTING.—John Daw, John Daw, jun., Nov. 3: We have this day been through these mines, and beg herewith to hand you the following report:—Skytmyr Mine: Brown's Shaft: This is being sunk by nine men. We are pushing this work as fast as possible in order to get to the 100. The lode is looking very promising, and will yield 3 tons copper ore per fathom. The 75 east has fallen off in value since we were here last. This, though, is only temporary, as in the winze sunk from the 60 to the 75, and which is now about 14 fathoms ahead of this end, the lode will produce 3½ tons per fathom. We expect an improvement in a few days. In the 50 and 60, we are pleased to inform you that both are improving. We are looking forward to a great improvement in both of these ends. The same remark will also apply to the 60 west.—Winzes and Stopes: These are looking much better to-day than a month ago. Two stopes in the back of the 75 will yield each 5 tons of good ore per fathom. Those in back of the 60 will produce from 4 to 6 tons per fathom. You will find the produce of the next cargo to be very much better than those sent during this summer.—Cross-cut: We have begun to drive this cross-cut from the 50, and hope to cut the lode to the north in about three or four months' time.—Boilestad Mine: Murchison's Shaft: This shaft is in full course of sinking with six men. The lode is 5 ft. wide, composed of capel, quartz, magnetic and iron pyrites, with copper ore, worth for the latter 2 tons per fathom. We intend to stock the ore from this mine for the present.—General Remarks: The lode at the new shaft is full 2½ ft. wide, producing on an average ½ ton per fathom. Being so near the surface this is a very promising lode, but not rich. The Samuel Holland has been expected for some time to load 260 to 270 tons. The late storms have greatly interfered with sailing vessels. The weather is very favourable for our work, although there is a little snow on the ground. The thermometer registered a few days ago 7° below zero (Reau). All the machinery is working very well, and the dressing going on most satisfactorily.

PESTARENA UNITED.—Nov. 2; No. 1 Lode; At the 33 a rise stope in the back is yielding 4 tons of ore per fathom, at 16 dwts. per ton; it has a short length of ore in mixed rock, with good pyrites. The 55 end north showed a few strings of ore lately, but is now in dark sterile schist. The 80 north is going through felspathic rock, with little appearance of lode. In the 100 end south the lode is yielding 3 tons per fathom at 15 dwts. There is a flat branch of ore going off due east, with another smaller one making in bottom that takes more south. The 100 end south on branch shows strings of ore trending flatly east to unite with main lode, and yields saving work. At the 110 north there is a small leader of ore in a large lode of massive schist, yielding 1½ ton of 20 dwts. stuff per fathom. In the south end of the 110 the lode yields 4 tons of 20 dwts. per fathom. The branch of pyrites holding south-east continues, and the idea that it is the No. 1 lode separating from No. 2 and taking up its regular course strengthens daily. The shaft sinking under the 110 is without change, the chist being hard ond without lode still.—No. 2 Lode: The 65, driving south, is yielding 4 tons per fathom at 13 dwts.; the lode shows more quartz, with a broken lode, and should the ore diminish a rise will be commenced to test the back.—No. 5 Lode: The driving at the bottom of the 33 winze to form a new level for continuing the sinking from shows a well defined lode of quartz in both ends, with magnetic iron pyrites, yielding saving work. The rise above the 65 goes up in a large width of quartz, and also yields a little saving work. The winze sinking under the 65 produces 3 tons per fathom, at 20 dwts. per ton. It goes down in easier rock, and carries a small lode of good ore that promises to widen out; a driving is now being made to take up the water. The cross-cut west at the 90 is getting into better ground, which lets out water, indicating proximity to lode. There have been 518 metric tons of ore milled during October, this being the largest quantity yet treated, but the yield of gold has not corresponded to it, being 393 ozs. 14 dwts. 6 grs., or an average of 15 dwts. 2½ grs. per ton. All the mills are kept going, and it is hoped the water will last some time yet, although the winter seems to have set in early.

Val Toppa: The end of the intermediate level under zero on new lode goes forth in fissile schist, with a leader of flookan. The No. 1 level on ditto has more massive quartz, but it is of lower grade than when it was last reported on; it is now yielding 12 tons per fathom, at 6 dwts. per ton. A rise stope in the back is giving 6 tons per fathom at 7 dwts., but the lode is contorted and variable, and difficult to follow. No. 1 level north, on west lode, having got into barren rock is suspended, and the men placed to stope the back. In No. 2 level north, on new lode, the branch is clear of the cross-course, and strengthening daily, and begins to give a little ore. This point was formerly called the end on the slide, but now there seems little doubt about the branch lately cut there being the new lode, and the name slide will be dropped. No. 3 level south, on the slide, continues in chloritic schist, and the end south, on the west branch, opens a small vein of quartz, which it is hoped will make a dropper from the great quartz lode. No. 4 level north, at the bottom of the winze, on great quartz lode, is turning out 12 tons per fathom at 6 dwts. per ton. The ore has been unbottomed south, but it dips under the end going forth, though in a much narrower lode. No. 1 level cross-cut west has got through the quartz veins lately seen, which proved sterile, and is now again in hard micaceous schist. The quantity of ore treated for October was 553 metric tons, and the bar gold produced 222 ozs. 8 dwts., showing an average of 8 dwts. 1¼ gr. per ton. All the works continue in a satisfactory condition.

PONTGIBAUD.—W. H. Rickard, Nov. 1: Rowre: The sinking of the engine-shaft below the 200 metre level continues in favourable rock. The rise in the 200 metre level, south of the shaft, shows spots of ore. The winze from the level above, over the above-named rise, yields good stones of ore. The 175 metre level south yields a little low quality stuff irregularly; we have set to cross-cut west thinking that a part of the lode yet remains in that direction. The 100 metre level south, on Virginie's lode, is unproductive. The cross-cut east in this level continues in hard ground. The cross-cut in the 60 metre lezel has intersected several veins producing a little ore. The 60 metre level, north of junction, on the caunter lode, yields stones of pyrites spotted with lead ore. The 20 metre level, in the same direction, on same lode, yields ¼ ton of ore per cubic metre. The adit south of the Mill cross-cut is in an unproductive vein. The lode in adit south at Seysoubre continues to present a favourable appearance, but yet unproductive. We have set to sink from surface on the course of the lode where first discovered, and find it produces good stones of silver-lead ore for depth sunk (8 metres).—St. Denis: The sinking of the air-shaft has gone on well; we hope shortly to communicate with the old workings, and thereby establish good ventilation. The erection of the engine and drawing gear will soon be completed, and the sinking of the engine-shaft resumed. There is no change in the tribute pitches at Mioche.—La Brousse: The 160 metre level, north of Alice's shaft, produces a little low quality orestuff. The same level south is unproductive. The 140 metre level south yields ¼ ton of ore per cubic metre. The 120 north yields stones of ore in hard granitic rock.—Pranal: The 110 metre level, north of St. George's shaft, yields a little ore. The same level south is unproductive. The 90 metre level north yields ¼ ton of ore per cubic metre. The same level south yields stones of lead ore and blende. The 70 metre level north is in disordered and unproductive ground. We have holed the rise from the 70 to the 50, thereby ventilating both levels. The 30 metre level south yields stones of orestuff at times. Our samplings have amounted to 218 tons.

AUSTRALIAN MINES.

PORT PHILLIP AND COLONIAL GOLD.—The directors have received advices, dated Sept. 26: Total quartz crushed for the month ending Sept. 7, 2439 tons. Total gold obtained 531 ozs. 2 dwts. 12 grs.; average per ton 4 dwts. 6 grs. Receipts (including 877*l.* 12s. 1d. obtained from tributers), 1388*l.* 10s.; payments (including 218*l.* 17s. paid for firewood), 1551*l.* 11s. 7d.: loss 163*l.* 1s. 7d., which deducted from the previous balance left the sum of 693*l.* 12s. 2d. in hand, which was carried forward to next month's account.

VICTORIA (LONDON).—The directors have advices, dated Sept. 26, giving the result of the working of the South Clunes Mine for the month ending Sept. 14: Total quartz crushed, 3724 tons; total gold obtained, 736 ozs. 16 dwts.; average per ton, 3 dwts. 23 grs. Receipts, 1739*l.* 3s. 9d.; costs, 1858*l.* 16s. 2d.; loss, 119*l.* 12s. 5d.

ENGLISH-AUSTRALIAN GOLD.—Mr. Mark Pollard (Fryerstown, Sept. 26): 360 ft. Level: This drive has been extended south 5 ft. during past fortnight, and the back of the drive has been stoped 5 ft. in height and 10 ft. in length on a block of stone making on the footwall of the lode; this drive is making more stone on the footwall; I see a little gold sometimes on breaking it.—320 ft. Level: We have driven 6 ft. west and 5 ft. from the rise with two leaders of quartz. I am following up the water on the run of stone north. I should think from the appearance of the country and the water coming down we should meet with quartz in driving here.—240 ft. Level: We have extended this drive 5 ft. during past fortnight. The reason we have not driven any more is the quartz has cut out on the western side, and we had to cut it on the eastern side to form a drive, as the quartz was heaved in that side of the drive, but the quartz is not so thick as it was and very poor.—232 ft. Level: We have holed through to the tributers' old workings and filled up the ground, so I now have the stopes in a safe position for working. I have 400 tons or 500 tons of stone to work from these stopes, and I think they are payable all through.—210 ft. Level: The stopes at this level are looking just the same for quartz, but dipping very fast going north, and seem to be cutting out or making into one block of stone, as the bottom leader is not dipping so fast as the top or back leader; from bottom to back leader is 15 ft. in height.—180 ft.: I have four men stoping at this level, two towards the boundary, and two 60 ft. further north on the same block of stone as 210 ft. level. I think this block of stone all through is payable, as we see a little gold in breaking the quartz, but it is very fine. I have not holed through to the little drive as yet on the boundary side of this block, but have about 3 ft. more to drive, quartz at this point, 2 ft. thick.—290 ft. Level: I have two men driving east from rise, 15 ft. north of New Era boundary; driven 16 ft. for past month. I have two small leaders in the drive with water coming through them. The New Era Company worked about 40 ft. east of the lode, 250 ft. from our boundary, some time ago, and I am driving here thinking I might meet with an eastern run of stone. If so, I shall put in a cross-cut from the 320 ft. level. I am driving here to prove the ground much quicker, as the ground below this is very hard. The cross-cut at the 70 ft, prospecting shaft, or 140 engine shaft, is in 93 ft. from the rise at the back of the 200 ft. level, without meeting with any quartz to work. I have about 30 ft. further to drive to be direct under the 90 ft, level engine-shaft, where there are some good leaders, worked some years ago. I intend to put a rise through to that level if I can meet with any good ground to rise through, as the ground in this drive has been very hard.—150 ft. Level: This level has been extended 11 ft. this fortnight, and another rise has been put up 18 ft. to the stopes above. Quartz in the drive about the same thickness; I have not seen any gold in this yet. The stopes at the back of this level are making more quartz. I have put up a rise from the back of the stopes 16 ft. The country east of the rise is full of small leaders, and I have seen gold in some of them; they are 3 ft. or 4 ft. apart, and from 1 ft. to 2 ft. in thickness. We have crushed 744 tons of stone during past month—result, 165 ozs. 10½ dwt. (4 dwt. 7 grs. per ton) retorted gold; also cleaned the copper amalgamating plates, which yielded 90 ozs. 4 dwts. of melted gold. The cleaning up from the battery is an improvement on last month. I hope to give you as good an out-turn next month if all goes well.—Western Shaft: We have not crushed any stone from this shaft this month. I intend to have a crushing after our next cleaning-up; The quartz in the south drive is very small, and I have not seen any gold in this drive this month. The stone in the north end is 15 in. thick, and I have seen a little gold in breaking it. The ground is still very hard sandstone country. There is not so much prospect at present at this level on this wall. The gold obtained from the quartz crushed during the month realised 65*5l.* 10s.; pyrites gold produce of 3 months realised 109*l.* 2s. 6d., and cleaning of the amalgamating plates yielded 31 ozs. 3 grs. standard gold, which, with 16 dwts. of scraping, realised 31*8l.* 5s. 4d. Total produce from eastern reef, 103*2l.* 18s. 1d. Gold sold from trial on western reef, 5 ozs. 6 dwt. 23 grs., 22*l.* 11s. 8d.; total produce, 1105*l.* 9s. 9d.; less expenditure on eastern and western reefs, 505*l.* 8s 10d., leaving 600*l.* 0s. 11d. Balance to the company's credit in the colony which on Aug. 29 last was 1002*l.* 7s., is increased on Sept 26 to 1622*l.* 7s. 11d. Mr. Clarke, the financial agent, under date Sept. 27, states that he shall send the gold in the next clean-up by the steamers sailing that day month, and he hopes and expects it will be larger than the previous remittance valued at 540*l.*

GOLD IN NEW SOUTH WALES.—The discovery of an immensely rich reef is reported at Upper Temora. It is estimated to yield 1000 oz. to the ton. Rich stone has been struck by the Amelia Company.

A SCANDAL IN NEW SOUTH WALES.—We learn from Sydney (Nov. 9) that, in consequence of the report of the Royal Commission appointed to investigate the charges made against the Hon. E. A. Baker, late Secretary for Mines, in connection with the disposal of the expropriation compensation awarded to the Melbourne Mining Company, the New South Wales Legislative Assembly has passed a resolution expelling the Hon. E. A. Baker for bribery and corruption.

WEST CARADON MINE.—During the past week a very important discovery has been made at this mine. In the 42 fm. level at New West Caradon there is a good lode of copper ore called the Main lode. This lode appears to have been missed by the former workers, and Capt. Richards, the present agent, has always been of opinion that it was also missed in West Caradon. A few days ago he placed a pare of men to open upon some promising indications in the adit

level of the latter mine. The result is the discovery of the lode that is at the present moment so productive in New West Caradon, and thus confirming the agent's views as to the possibility of the lode having been missed under the former working. The lode has been found 60 fms. from the point at which it is good in New West Caradon, and the discovery is of the highest importance to both mines.

MOUNT CARBIS.—The discovery lately made here continues to attract attention. Some rich tinstone is being brought to surface. They appear to be on the top of a good course of tin, judging from the beautiful crystals coming from the bottom level.

LIST OF SMELTING, METAL EXTRACTION, ARSENIC, AND BARYTES COMPANIES IN THE UNITED KINGDOM.

TIN.

Thomas Bolitho and Sons, Chyandour, Cornwall.
Williams, Harvey, and Company, Trethellan and Mellanear, Cornwall.
Daubuz and Company, Cavedras and Treloweth, Cornwall.
R. R. Michell and Company, Trereife, Penzance Cornwall.
Bissoe Bridge Company, Bissoe, near Truro, Cornwall.
Redruth Tin Smelting Company, Redruth Cornwall.
Calenick Tin Smelting Company, Calenick, Cornwall.
Charlestown Tin Smelting Company, Charlestown, St. Austell.
Penpoll Tin Company, Redruth.

COPPER.

Vivian and Sons, Hafod, Swansea.
Pascoe Grenfell and Sons, Middle Bank, Swansea.
Nevill, Druce, and Company, Llanelly.
Williams, Foster, and Company, Swansea.
Mason and Elkington, Pembrey.
Copper Miners' Company, Aberavon.
Charles Lambert and Company, Port Tennant, Swansea.
The British and Foreign Copper Company, Liverpool and St. Helen's.
Landore Copper Company, Landore, near Swansea.
Newton, Keates, and Company, St. Helen's.
Baxter and Company, St. Helen's.
Bibby, Sons, and Company, St. Helen's and Liverpool.
W. Roberts, jun., St. Helen's.
James Keys and Son, Whiston Works, Cheadle, Staffordshire.
Cape Copper Company, Swansea.
Ravenhead Copper Company, Liverpool.
Pontifex and Wood, Garratt Copper Mills, Surrey.

LEAD.

Bewick and Partners (Limited), Hebburn, Newcastle-on-Tyne.
Nevill, Druce, and Company, Llanelly.
Runcorn Smelting Company, Runcorn.
The Panther Lead Works, Bristol.
Blackworth Lead Works, Bristol.
E. Pass and Son, Bedminster Works, Bristol.
Weston, Sons, and Company, Bristol.
Cookson and Company, Howden, Newcastle-on-Tyne.
Locke, Blackett, and Company, Wallsend-on-Tyne.
Executors of Jos. Dinning, Haydon Bridge.
Vivian and Sons, Swansea.
Enthoven and Sons, London.
Locke, Lancaster, and Company, London.
Pontifex and Wood, Farringdon Works, London.
Logan Edward, Birkenhead
Pur Lead Smelting Company (C. Remfrey), Par, Cornwall.
Peter Glover and Robinson, Widnes Lead Works, near Warrington.
White Rock Works, Swansea.
Quirk, Barton, and Company, St. Helen's.
Adam Eyton, Llanerchymor, Holywell.
The Cambrian White Lead Company, Brymbo, near Wrexham.
Joseph Walker, Parker, and Co., Dee Bank, Bagilt, and Newcastle.
Governor and Company of Lead Smelters, Nenthead, Alston Moor.
" " " Stanhope, Durham.
W. B. Beaumont, Allendale, Northumberland.
" " Rookhope, Durham.
Mill Dam Mining Company, Bakewell.
Joseph Wass and Son, Lea Lead Works, Matlock Bath.
J. Fairburn and Company, Middleton Dale and Bradwell.
Snailbeach Lead Company, near Shrewsbury.
Pontesbury Lead Works, Minsterley, near Shrewsbury.
J. H. Moore Brough Works, Hope, near Sheffield.
E. Backhouse, Darlington.
Greenside Mining Company, Penrith.
The Keld Head Mining Company, Wensleydale.
John York, Pateley Bridge.
Duke of Devonshire, Grassington.
The Duke of Buccleuch, Wanlock Head.
The Lead Hills Mining Company, Lead Hills.
Lister, Robinson, and Company, Grinton Moor.
The Arkindale Mining Company, Arkengarthdale.
The (A.D.) Lead Company, Blakethwaite.
R. Milner and Company, Belde Hill.
The Swaledale Lead Company, West Swaledale.
Executors of Sir G. W. Denys, Bart., Surrender, Swaledale.
Charterhouse, Blagdon, Mendips, Bristol.
Waldegrave Lead Smelting Company (Limited), Mendips, near Wells.
The Mining Company of Ireland (Limited), Dublin.

ZINC.

Bagilt Zinc Company.
Vivian and Sons, Swansea.
Kenrick and Son, Wynn Hall, Spelter Works, Ruabon.
Charles Titterton, Phœnix Zinc Works, Warrington Junction.
Dillwyn and Company, Swansea.
Joseph Thompson, Spelter Works, Carlisle.
Ryland Brothers, Warrington.
Crown Zinc Company, Swansea.
Villiers Spelter Company, Morriston, Swansea.
Swan and Company, Maryhill, Glasgow.
Swansea Vale Spelter Company (Limited), Swansea.

PYRITES PRECIPITATE COMPANIES.

Duncan McKechnie, St. Helen's.
The Widnes Metal Company, Widnes.
The Tharsis Sulphur and Copper Company, Widnes.
" " " Hebburn; Newcastle.
" " " Birmingham.
" " " Glasgow and Cardiff.
N. Mathieson and Company, Widnes.
The Runcorn Soap and Alkali Company, Runcorn.
Wigg Brothers and Steele, Runcorn.
Newton Heath Copper Smelting Company, Manchester.
Muspratt Brothers and Huntley, Flint.
William Russell and Company, Newcastle.
The Bede Metal and Chemical Company, Jarrow, Newcastle.
W. Hunt and Sons, Leabrook, Wednesbury.
William Hunt, Brother, and Co., Castleford.
Harrison, Blair, and Company, Kearsley, Bolton, Lancashire.
Henderson and Company, Irvine.
H. Hills and Sons, Newcastle.
Eyton Copper Company, Mostyn.
Morris and Company, Doncaster.
W. D. Pochin and Company, Newcastle.
South Devon Metal and Chemical Company, South Down, Devonport.
H. G. Lord and Company, Calstock.
Holmbush and Kelly Bray Company, Callington.
Gibbs, Jackson, and Company, Newcastle.

ARSENIC.

Cornwall Arsenic Company, Hayle and Bissoe Bridge, Thomas Willis Field, Managing Partner, Marazion, Cornwall.
Devon Great Consols Mining Company (Limited), Tavistock.
J. B. Drayton and Company, Harrowbarrow, Callington.
English Arsenic Company, Roseworthy, Gwinear, Cornwall.
Palmer and Hall, Morriston, Swansea.
A. C. Hadland, Swansea.
Plympton Mining and Arsenical Company (Limited).
Okel Tor Arsenic Works, Calstock.
J. Paynter and Trythall, Bissoe Chemical Works, Devoran, Truro.
Holmbush Mining Company, Callington, Redmoor.
" " Greenhill.

BARYTES MANUFACTURERS.

Blackwell, George G., Garston, Liverpool.
Pegg, Harper, and Company, Derby.
Ellam, Jones, and Company, Derby.
Stevens Brothers, Matlock Bath.
C. H. Garton, Lumsdale, Matlock Bridge.
Wm. Hawley, Bonsall, near Matlock Bath.
E. Brown, Bonsall, near Matlock Bath.
Hegginbotham, Stoney Middleton, near Sheffield and Whaley Bridge.
Middleton Dale Barytes Company, Stoney Middleton, near Sheffield.
White and Company, Chapel-en-le-Frith, near Stockport.

NICKEL AND COBALT.

H. Hussey Vivian, M.P., Swansea.
Stephen H. Barker, Birmingham.
Henry Wiggin and Company, Birmingham.
W. Webb and Company, Aston, near Birmingham.
Sir J. Mason, Bromford, Birmingham.
J. H. Williamson, Stoke-upon-Trent.
Rawlins and Son, Liverpool.

GOLD AND SILVER REFINERS.

Vivian and Sons, Swansea.
Johnson, Matthey, and Company, London.
Brown and Wingrove, Wood street, Cheapside.
M. Rothschild and Co., Royal Mint Refinery.

SILVER ORE SMELTERS.

Vivian and Sons, Swansea.
Nevill, Druce, and Company, Llanelly.
Raphael and Company, Thomas street, Limehouse.
Sheffield Smelting Company, Sheffield.
E. W. Oates and Co., Sheffield.

ANTIMONY SMELTERS AND REFINERS.

Cookson and Co., Newcastle-on-Tyne.
Hallett and Co., Norway Wharf, London.
Johnson, Matthey, and Co., Hatton Garden, London.
Pontifex and Wood, Millwall, London.
J. J. Fryers and Son, Kingland road, London.

CAMBRIAN MINING COMPANY

(LIMITED).

The following has been forwarded to the Shareholders of this Company :—

33, Victoria-street, London, S.W.,
November 10, 1881.

SIR,—Amongst the penalties of success and certain followers in its train, will always be found Misrepresentation, Jealousy, and Abuse. I have by this time become too accustomed to these nefarious influences to trespass on your patience for the mere purpose of refuting them. My present object is much more important. It is an endeavour to prevent some hundreds of shareholders from committing financial suicide.

For some months past my name and my doings have been constantly denounced to the Cambrian Shareholders. Noisy meetings have also been held, at which language has been used, concerning myself, of a most unfair and insulting character, all of which proceedings I can afford to treat with calm indifference. The meetings I have not condescended to attend, neither have I even by contradiction descended to the very low level of my traducers. The principal one I have only seen once, and that was at the Guildhall Police Court, when he was committed for trial on the charge of libel, which case is still pending. I repeat, I have not noticed the puny endeavours of my slanderers, but now that they are using my name for the purpose of obtaining money by false pretences it becomes my duty to utter a caution.

It is represented that I am responsible to the Cambrian Company for a large sum of money, and Shareholders are invited to subscribe fresh capital for the purpose of obtaining it from me. If I were indebted to the Cambrian Company it would be paid immediately without the intervention of the law. On the other hand, I am not the sort of man to submit to extortion. I challenge and defy my cowardly assailants. JUSTICE and the LAW are on my side as opposed to SLANDER and UNTRUTHFULNESS on theirs. Again, I say, with the utmost scorn and contempt, I defy them.

My connection with the Cambrian is widely known. It is no secret. It is no mystery, although it has been, for dishonest purposes, so represented. I will in a few words repeat the story :—I, taking advantage of my knowledge of Mining and the Carnarvonshire district, and from reliable information received from Miners connected with me, purchased of a person, who much needed the money, for the sum of £2250 the Esgair-Hir and Esgair-Fraith Mines, at that time abandoned and full of water. As it was necessary to gain the consent of the freeholder to the transaction, and as at that time I had reason to suppose that the agent was prejudiced against me, Mr. Green allowed me to use his name in the matter. Immediately I got the possession I set to work and forked the Eastern Shaft, then down only ten fathoms below adit. I continued the sinking and cross-cut south into a magnificent course of copper, causing a great sensation in the district, as a reference to the *Mining Journal* of the time will testify; indeed, it was considered by practical miners to be of immense importance. Overtures were made to me to sell it to a company, which I eventually did for £70,000 in shares, and much regretted it afterwards, as I considered I had made a bad bargain. The company had my mines, and in return I had the company's shares; surely a legitimate transaction. Would my slanderers, supposing they ever had property of their own, part with it for nothing? Would any man? Of course I sold the shares, and the public eagerly bought them. I have never been officially connected with the Cambrian Company, but I have, at the request of the directors, visited the mines. I know the difficulties that have had to be encountered, I also know the great amount of useful work done, and I know that at the time of the agitation the long-expected results were about to be realised—in fact, I was so convinced that I agreed with the directors that if my ideas are carried out I would find whatever sum was required irrespective of any appeal to shareholders for more money. With this object I advanced £500, and commenced the sinking of the western shaft. Then the agitation began; I was disgusted to think that shareholders paid attention to the silly twaddle placed before them by persons totally ignorant of the subject, withdrew my further support; and, in order to save the property from the vultures, prepared a petition for liquidation. Had I continued my operation by this time the company would have been in a most satisfactory position. I agreed to accept 5 per cent. interest for the money advanced by me. Some two years ago I took a large number of shares of the company at £2 each to enable them to purchase the Robey engine.

Such is the whole of my connection with the Cambrian Company.

As I shall not trouble you with any further communication, I take this opportunity of telling the shareholders that they have been fooled, and are now being robbed of their property by one of the most unjust and designing schemes ever concocted.

The petition to the Court of Chancery to wind-up the company comes on for hearing on the 18th inst., and I am determined to oppose it at my own cost,

To those Shareholders who are foolish enough to court the destruction of their own interest I have nothing to say. To those Shareholders who have a sense of HONOUR, JUSTICE, and MANLINESS I appeal to give me their support in frustrating the evil designs now being carried out.

Yours, ever truly,

JOSEPH FELL.

Mining Correspondence.

BRITISH MINES.

ASSHETON UNITED.—J. Garland, Nov. 9: During the month ending on Saturday, the 5th inst., the 40 west was extended 6 fms. 3 ft. 2 in. The lode is still small, disordered, and unproductive; and we expect to reach a section of ground in about six weeks which is turning out well in the 60 west, our pioneer level in that direction. The driving of the 70 west, which had been suspended pending the putting up of a rise to the 60 for ventilation, &c., has been resumed, and 6 ft. 11 in. driven. The lode is unsettled and poor at present, while the ground is more favourable for driving. We have five tribute pitches working, by 12 men, at tributes varying from 3*l.* to 8*l.* per ton of lead ore. The pitches are yielding fairly well. On Wednesday next we shall sample, as usual, 20 tons of lead ore.

BEDFORD UNITED.—R. Goldsworthy, Nov. 9: Driving is now being carried on by the side of the lode in the 115 east, consequently there is nothing to report. I have let a piece of ground in the back of the 127 on tribute, at 10s. in 1*l.*—Bridge Lode: Maccallan's shaft is cased, divided, and skip-road put down to the 31, but in future we shall call this the 30, and shall commence to draw from there to-morrow. The lode in the 20 east is about 2½ ft. wide, producing some good stones of ore. The lode in the same level west is improving in appearance, pruducing more mundic and letting out water freely. In consequence of the very heavy rain we have recently had, we were obliged to suspend sinking the little western shaft, but as soon as the water falls off sinking will again be resumed.

BLAEN CAELEN.—J. Pell, Nov. 9: There is no change to notice since my last report. The great discovery of ore in the 30 is being gradually extended east and west, and is holding up well. On the north side of the 20 the lode is upwards of 18 ft. wide, good saving work for crushing. All machinery and plant in good order. Shall send off another parcel of lead ore next week.

BLUE HILLS.—S. Bennetts, R. Harris, Nov. 5: The 80 east end is at present poor. The 42 east, on the north lode, is producing some tinstuff of low quality. The 30 east end is worth 10*l.* per fathom.

BWLCH UNITED.—Wm. Northey, Nov. 9: Last Saturday we set the following bargains:—The 50 east, to be driven by four men, at 4*l.* 17s. 6d. per fathom, and to clear their own stuff. The lode is 2 ft. wide, composed of killas, quartz, and mundic, and occasionally spots of lead ore, and has a favourable appearance of an early improvement. The 12 east has been re-let to drive by four men, at 4*l.* 15s. per fathom, and the men to clear their own stuff. The lode is about 2 ft. 6 in. wide, carrying a mixture of killas, quartz, and lead ore, but not sufficient to value. The rise in back of 12 east to four men, at 5*l.* per fathom. Since my last report, I am pleased to say, the lode has greatly improved in value, composed of blende, copper, quartz, and lead ore, but it has not been sufficiently proved to fairly estimate its value, and from the present indications I anticipate that we are entering the rich run of lead ore left to stand in back of the old stopes. No. 1 stope, in back of same, to six men, at 2*l.* 15s. per fathom. The lode has slightly fallen off in value, and is now worth 10 cwts. of lead ore per fathom. No. 2 stope, in back of same, to four men, at 2*l.* 10s. per fathom. The lode will yield about 12 cwts. of lead ore per fathom. Tribute pitch at the 15, west of Ritchie's shaft, to two men, at 7*l.* 10s. per ton, delivered clean in.—Bin: The men are now engaged in removing their ore stuff to surface. Marvin's lode, the 15 east, has been re-let to drive, at 4*l.* 14s. per fathom, and the men to clear their own stuff. The lode is about 2 ft. 6 in. wide, composed of killas, quartz, and small ribs of lead ore, and has every appearance of an early improvement, and is still taking a more southern direction, which is a favourable indication. The stope in back of the same level, west, to six men, at 2*l.* 15s. per fathom. The lode will now yield about 14 cwts. of lead ore per fathom. The cross-cut, south, at the adit, to Marvin's lode, to four men to drive, at 5*l.* 2s. 6d. per fathom, the men to clear their own stuff. On Friday last we met with a small rib of lead ore and quartz, running in a south-westerly direction, and I have placed the men to drive on its course, believing it will shortly lead us to the lode.—Surface-Work: I have let the burrows to be picked over at 7*l.* 10s. per ton, the ore stuff to be delivered to the crusher. The dressing is pushed forward as fast as possible, and the machinery throughout the mine is working well.

CALLINGTON CONSOLS.—Thos. Gregory, Nov. 9: The shaftmen in Foake's engine-shaft are now engaged in sending down and fixing the pumps, putting in bed-plant, &c., in said shaft below the 45. This work will be completed, and the sinking resumed, in course of a day or two. The ground continues of the same favourable character, and some good branches of copper and mundic are being intersected as we go down. In the 45 east the ground is improving by the side of the lode; 6½ ft. have been driven in the past week, and there has been no lode taken down since last reported. The lode in the winze sinking below the 45, east of Foake's engine-shaft, is of the same favourable character as reported last week—producing large rocks of ore, and is very promising. The ground being good, satisfactory progress has been made, about 6 ft. having been sunk in the past week. Machinery all working well.

CARNARVON COPPER.—J. Roberts, W. Darby, Nov. 8: In the 90 end there is no change to notice since reported last week. In the rise at the 90 we are still taking down the lode, which looks very promising, and worth full 1 ton 5 cwts. of ore per fathom. The stopes between the 80 and 90 continue much the same as reported last week. The eastern stope is worth 3 tons of ore per fathom, and the western stope 4½ tons per fathom. The new cross-cut at the 70 (Garnon's) the lode is looking very kindly, and the ground has become a little wetter. The leader of ore is improving, and worth at present 12 cwts. per fathom. In the cross-cut at the 46 (Carreg-y-Groes) the ground continues very hard and spare for driving, but yesterday we cut into some water, and to-day the end is much wetter, and we trust that we shall be in better ground shortly.

CARNARVONSHIRE GREAT CONSOLS.—W. H. Borlase, Nov. 9: Since taking the management of this mine I am pleased to say things have progressed very satisfactorily; and, from the time of starting the engine, in six days we were in fork to the 14, in which I found considerable sediment, and also a run or two from the roof of level, the whole of which is cleared out, the back secured, and I am hoing to see the bottom of Endean's shaft to-morrow, and start sinking it as early as possible; but good men are not easily got at in this district. At present there are only three stopes working, and these in the back of the adit. No. 1 stope has improved very much during the last fortnight, and will now produce from 20 to 25 cwts. of lead per fathom. The men in Nos. 2 and 3 have been desuing the lode for some time past, but I have put them to strip down this afternoon, where I am hoping to see a good lode; when last taken down each stope produced from 10 to 15 cwts. of lead per fathom. I shall be glad to receive your instructions defining the operations you wish carrying out, and hope you will decide on sinking the diagonal shaft as well as Endean's. The winding engine was started to-day, and has drawn the rubbish away from the 14, and I intend to train and draw some lead-work to-morrow; the engine works well. The wood and iron is now ready for the new pithead and road to crusher, and shall start putting it together to-morrow; and as soon as the dressing engine is repaired we shall be in a position to make returns of lead.

COURT GRANGE UNITED.—J. Pell, Nov. 10: Saturday last was pay and setting-day for the ensuing two months, and the following bargains were taken:—To stope in the back of the 45, west of engine-shaft, at 9*l.* per ton, paying all cost; set to six men. To stope the back of the 14, west of engine-shaft, at 8*l.* 10s. per ton, paying all cost; set to four men. To stope the back of the 14, both east and west of footway shaft, at 9*l.* per ton, paying all cost; srt to six men. To raise ore from waste heaps and back of lode at surface at 8*l.* per ton; set to two men. All the above bargains to pay tramming, filling, and landing stuff and dressing cost. To stope back of the 30 at 2*l.* 15s. per fathom; paying all cost; set to eight men. To drive the 14 east at 3*l.* per fathom (with boring machines: also the 30 east at 5*l.* per fathom, paying cost; set to nine men. Sending 12 tons to Bow-street station this week. Abundance of water, machinery doing good work. No improvement in value of stopes to notice this month. The end is poor for lead, but a good deal of blende, and likely to improve, as there is a change in the character of the stuff broken the last fathom.

CWM DWYFOR (Brynarian Mine).—J. Davies, Nov. 9: I have re-let the driving of Joseph's level for another four weeks, at 4*l.* 10s. per fathom; the ground remains firm, without change; they have driven 1½ fm. this week.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, Nov. 13: In the 112 the main lode is out of the cross-cut. I am glad to say the stope below this level is improving for lead, and there is evidence of still greater improvement. In the stope in back of this level we are getting lead in paying quantities. In the driving of the level the lode also shows signs of becoming more valuable.

D'ERESBY MOUNTAIN.—J. Roberts, Wm. Sandoe, Nov. 9: At No. 6 the air having got to be very bad for working, and the end being not quite so well, we have put the end men to rise up in the roof to get up to the great stope by the time the men in the cross-cut in that place shall reach that part of the lode; this will well ventilate the place and open a good stope, and give a fine advantage for breaking lead, and facilitate the driving of the end further on. In order to do this we had to put in an air machine and air pipes to get sufficient air for the men to work. The stope continues to look quite as good as we have reported, worth 1½ ton of lead to the fathom. The cross-cut from the great stope is getting into good patches of lead, and letting down much water, and we expect that we are getting near to the bottom of the old men's workings. In the other part of the stope, after having been several days desuing the lode, we have commenced to blast it down, and it is producing good leadstuff.

DEVON FRIENDSHIP.—Wm. Gill, Nov. 10: The lode in the adit end is improved, and is now full 4 ft. wide, of a splendid character, producing from 6 to 7 tons of arsenical mundic per fathom. No. 1 stope, in the back of this level, is producing 10½ tons per fathom—a fine looking lode indeed. The other three stopes are yielding usual quantities, about 3 tons each per fathom. We have cleared the winze about 11 fms. below the adit level, but find the water too much to keep with barrels, therefore we have suspended this point of operation until we have drained Bennett's shaft to the 30, when we expect to have the winze dry. We have made good progress in fixing standing-lift which is now completed, and hope to drop the lift to the 30 to-morrow, and in a few days to be in the 30.

DRAKE WALLS UNITED.—Moses Bawden, Nov. 10: We have completed the new skip-road in the engine-shaft to the deep adit, and are now fixing the poppet heads and pulleys, and other necessary work in connection therewith, to enable us to draw through the shait, which we hope to do in course of next week. In driving a 20 fm. level west of engine-shaft we are opening up some good tribute ground; here we have a great length on the south branches unexplored, and from which we shall no doubt have a large quantity of good tinstuff. The deep adit, driving west on the south branches, is laying open some good tribute ground. We are still cutting into the copper lode at the deep adit, but as yet have not met with copper ore to value. All the necessary surface repairs are being proceeded with as fast as possible, and we hope to be soon in a position to require the use of the powerful steam stamps which are now ready for work.

EAST BLUE HILLS.—S. Bennetts, Nov. 10: The lode in the adit east end is now 1 ft. wide, of low quality tinstuff, and the killas about it is somewhat easier for driving. In the 40 east end the lode has improved both in width and quality, and is at present 1½ ft. wide, and worth about 7*l.* per fathom. In the winze below the 30 fm. level the lode is 3 ft. wide, but just now is producing only low quality tinstuff. The point reached in the clearing of the adit level, south towards the Pink lode, is full of stuff nearly to the back of the level, stuff evidently lodged there to save cost of drawing, from which we think it near the Pink lode.

EAST DEVON CONSOLS.—James Browning, Nov. 8: I cannot speak of any material alteration since my last. We hope soon to report the cutting of a good lode in the cross-cut; indications at present are all in favour of such being the case. To-day I find another very promising branch coming into the north

end. This mine offers excellent prospects for becoming one of the best in the locality in which it is situated, and it is only a matter of depth which is required to ensure success.

EAST LONG RAKE.—H. B. Vercoe, Nov. 10: The lode in the 50 west continues of its usual size and strength, but does not produce so much lead as last reported. It is still well mixed with lead, and will doubtless improve again in a few days. The lode in the stope in roof of 50 west, and in rise in roof are of the same value as last reported. The lode in the 50 east improves, and shows nice patches of lead. There has not been much work done during the week on the new flat, the men having been engaged in timbering the ground, hanging tackle, &c. The little that has been done shows good lead, and I expect in my next report to give you still better news. We are busily engaged preparing the lead for market, and shall have a parcel ready by the end of next week.

EAST ROMAN GRAVELS.—A. Waters, Nov. 10: In the 109, south of boundary engine-shaft, the lode is 3 ft. wide, composed of spar, spots of lead ore, and stones of blende, but not to value. The 97 south is in a lode 5 ft. wide, worth 2½ tons of lead ore per fm. The stope in this level, near the shaft, is worth ¾ ton per fm. The 97, north of 86 winze, going towards shaft, on hanging-wall part of lode, is worth ¾ ton lead ore per fm.; the main ore course is by our side here. The three stopes in the 86, north and south of 75 winze, are worth together 2½ tons per fm. The pitch in the 75, south of shaft, is worth ¾ ton lead ore per fm. The machine drill in the 97 is doing good work.

EAST UNY.—Wm. Hooper, Nov. 10: The 82 end west, on Davis's lode, is 3 ft. wide, worth 1 ton of copper ore per fathom, and the remainder saving work for tin. The rise in the back of the 82, on Davis's lode, is worth 2 tons of copper ore per fathom. The 70 end west, on No. 1 lode, is 1 ft. wide, with some good stones of tin and copper. We have cut through the lode in the 70 end west on No. 2 lode: it is 8 ft. wide, with tin throughout, but not enough to value. I have set two pitches at 13s. 4d., and one at 9s. in 1l. in the back of the 50 west on the Great Flat lode. I have had the 40 west on the Great Flat lode cleared of stuff. The end is 26 fms. behind the tin ground that is working at 9s. tribute in the back of the 50. I intend to push on the 40 end with all possible speed to reach the shoot of tin ahead of us.

EAST WHEAL LOVELL.—Quentrall and Son, Nov. 11: Tregonebris: Engine Lode: The engine-shaft is 9 fms. below the 34, and is being sunk by eight men, at 30l. per fathom. The lode is worth, for length of shaft, from 12l. to 15l. per fathom. We are sinking a winze below the 34, east of engine-shaft, by four men, at 14l. per fathom. The lode here has improved since last reported, and is now worth 15l. per fathom. There are six men stoping the back of the 22, west of engine-shaft, at 7l. 10s. per fathom, the lode being worth about 10l.—Rogers's Lode: Since our last meeting we have driven the 42, east of Middle shaft, 8 fms., and communicated with the bottom of the previous workings. The lode was a little disordered about the shaft, but the greater part of this distance was through a good lode, and we have just commenced stoping the back of this portion of the level, where the lode is looking very well. We have just cleared a quantity of stuff, but as the old level was from eastwards towards our shaft, we are putting a stope east in the bottom of the level to unwater the old workings. From the extensive workings above the level, we think there is every probability that we shall meet with profitable ground going below, and as far as we can ascertain there as been scarcely any tin taken away below this level. We have cut flat and barrow road, fixed pent-house, and have 12 men and boys sinking the middle shaft below the 42 fm. level. We are cutting cistern plat, &c., at the same time, and in about a fortnight we shall be fixing a plunger pole at this level, after which we shall use every effort to sink this shaft deep enough for another level as fast as possible. This is a very important point, as we shall then be able to drive back a new level under the workings which were formerly so productive, and which gave the first dividends in East Wheal Lovell. From all the information we can gather we think there is every prospect of our making profits after we have opened up another level.—South Lodes: We are driving the 10 east, and the lode contains a little tin, but we shall shortly be in a position to put out a cross-cut to prove these lodes at a deeper level.

EAST WHEAL ROSE.—W. Skewis, T. Doidge, Nov. 7: We are pleased to inform you that Middleton's lode still continues from 2 ft. to 3 ft. wide, with well defined walls, good flookan, carrying good lead, mundic, and quartz; we find here the lode is a little disordered by the crossing of Davis's lode, which has taken place within the last few days; looking, however, at the present strength and character of the lode this change can be but temporary.—Innes' Lode: This lode has been seen in five different places, varying in size from 2 ft. to 5 ft. wide, composed of quartz, mundic, lead, and blende, the latter two good saving work. It is an important fact which should be noticed that neither this or the east and west lode have been worked upon below the adit level, notwithstanding their great size and strength, and the quality of the mineral they contain; the reason for neglect of this by former workers cannot be accounted for in any other way than that they followed the large masses of ore which came away with little cost, and omitted prosecuting these lodes, which we have every reason to believe will be found equally productive as the mine is drained and developed, seeing a very long extent of ground has been worked away on those lode above adit, which must have paid well. It is not our intention to spend much money on these before we get to the 20 fm. level. Penrose's engine-house is completed, as stated in last report. The stack for the boiler-house is running up very fast and satisfactorily. The ground for the boiler-house is out, and the building of the house commenced, and will be continued as fast as the other buildings. The engineers are here, and have commenced the erection of the engine. North Wheal Rose engine-house is progressing very fast, and every effort is being put forth to complete the same at the earliest moment. You are aware that nearly all the engine for this house (100 in.) is on the mine.—Purser's Shaft: We have opened the top of this, and dropped the line in several fathoms of water, which speaks well for its being in sound condition. The work on the whole is going on, we consider, faster than could reasonably be anticipated.

GAWTON.—Geo. Rowe, Geo. Rowe, jun., Nov. 5: The lode in 117 fm. level east is showing a kindly appearance, being over 6 ft. wide, yielding 20 tons of arsenical mundic and copper ore per fathom. The lode in the 105 fm. level east is principally arsenical mundic, intermixed with good quality copper ore, and yielding 15 tons per fathom. The lode in the 95 fm. level east is showing an improved appearance, with good quality arsenical mundic and a little copper ore. All other points continue without change. The new arsenical furnaces continue to work well, and all the surface work is progressing very satisfactorily.

GLASGOW CARADON CONSOLS.—Wm. Taylor, Wm. J. Taylor, Nov. 7: In the 114 cross-cut south we have not yet cut the lode, but are meeting with veins of solid copper ore, which are droppers to the lode; the ground altogether highly mineralised, according to the underlay as seen in the lode above. We have some 10 or 12 ft. to drive to reach the lode, but may cut it sooner. We are anxiously watching this, and are pushing on as fast as possible. We expect the 102 will be sufficiently drained to commence sinking on this lode in a few days. The 102, west on branch or middle lode, is still improving. This was very small when we set off from the cross-cut, now worth 5l. per fathom, and expect to see it further improve as we get under the run of ore ground in the bottom of 90. The winze coming down on this level from the 90 will, we hope, communicate this month, which will ventilate and show more of the ore ground in this direction. The tribute pitches on the whole are looking just the same as last reported. The stopes are valued at from 10l. to 12l. per fathom. We sell on the 17th inst. (computed) 110 tons of good quality ore.

GLENROY.—R. Rowe, Nov. 9: The lode in the 103 north has further improved since last week, and now producing some nice stuff for lead and blende. There is no change in the shaft sinking below the 122, nor in the 25 stope, since last week.

GOBBETT.—J. Browning, Nov. 9: No change to notice in the driving of the adit end since my advice of Tuesday last. Every effort is being made to reach the lode with the utmost dispatch, and we have good reason to hope for a successful result.

GODDARD'S LEAD.—R. H. Vivian, Nov. 10: The mine continues to open up for lead and blende very satisfactorily. It gives me much pleasure in seeing a steady improvement as the workings are extended. I shall be very glad if some of the company will come down again and see the mine for themselves.

GOODEVERE.—R. Knott, Nov. 9: The lode east of shaft maintains its promising character and size, being 6 ft. wide. The new lode continues to look very promising, and is now 4 ft. wide, composed of good quality tinstuff. I would here remark that this lode is producing more tin in the bottom of the level than it is towards the back, and a good lode is holding down for the last 4 fms. driven.—Surface: The water-wheel will be completed this week, after which we shall get the stamps connected as soon as possible. The dressing-floors are well forward.

GORSEDD AND MERLLYN.—W. Edwards, Nov. 10: The 90 fm. level west keeps improving, larger quantities of blende making its appearance and the lead getting more solid; of the latter it will turn out 27 cwts. to the fathom. Drven since last report 1 yard 2 feet 6 inches. The 50 fm. level west is, I believe, going to lead us into a splendid discovery; the point we are at present driving is worth ¼ ton of lead to the fathom. In the No. 1 pitch in the bottom of the 70 east the lode is worth for lead ¾ ton to the fathom; the No. 8, 8 cwts.; the No. 3, 14 cwts. per fathom. I expect to report very favourably of the 50 some time next week. A discovery of value here would place the mine in a splendid position.

GREAT LAXEY.—W. H. Rowe, Nov. 8: The lode in the 259 end, north of Welch shaft, is of a very congenial nature for ore, and yielding saving stuff for blende. Until the 247 end is quite clear of the slide the lode will be irregular and unsettled; after this we may expect it to be more steadily productive of ore. There is no change in the 235 end, and we have now commenced a cross-cut there for the double purpose of holing to a winze sunk from the 220, and to continue the level upon the eastern branch of the lode. Another winze further south in the 220 is now holed to this level, laying open some fair stoping ground, worth at present about 15l. per fm. The stopes below this level (the 235) have not materially changed of late, and there is still a little ore continuing in the winze near the Welch shaft, which we are in hopes may yet improve, and direct any trial that may be desirable of this pipe of ground in the levels below. No. 1 stope in the sole of the 220 is worth 20l. per fathom.; No. 2, 25l. per fathom; No. 1 in roof, south of engine-shaft, 18l. per fathom; No. 2, 11l. per fathom; and No. 3, 16l. per fathom. The two stopes in sole of the 210 are worth respectively 18l. and 16l. per fm. There is nothing fresh worthy of remark in the shallower levels of this part of the mine.—Dumbell's: The lode in the 230 end north continues nearly of the value last reported, or about 32l. per fm. The 200 winze is holed to the 215 end, and laying open a very valuable piece of ground, which as soon as the end is a little further advanced can be worked; the present value of the 215 end is 20l. per fm. There are two stopes in the roof of this level at present, one worth 13l., the other 60l. per fm. A stope in roof of the 200 is worth 15l. per fathom. The intermediate stopes and workings to the 110 show no special feature of importance. We have commenced some new stopes in the sole of the latter level, one of which is worth 35l. per fathom. Those above and below the 85 have slightly fallen off, but no doubt will improve again. The 85 end still continues unproductive; should no improvement be met with we shall start to sink to the 110. The 70 south has now intersected both Dumbell's and Aquesh slides, the lode showing a little blende, and of a generally promising character.

GREAT RETALLACK.—J. Harris, Nov. 5: I am glad to tell you that the 64 end east has considerably improved for blende, as the lode will produce fully 1 ton per fathom, and I think that in another 6 ft. driving the lode will further improve; and I am hoping that we are on the point of entering into the great deposit of blende we have been looking forward for. I have to-day reset the end to drive by six men at 2l. 10s. per fathom.

GREAT WEST CHIVERTON.—John Curtis, Nov. 10: There is no change to notice on the south lode. In the deep adit west on the north lode it is 3 ft. wide, with a leader in the north wall 15 in. wide, composed of spar, yellow mundic, &c.; a kindly looking lode for peradies copper ore.

GREEN HURTH.—J. Polglase, Nov. 4: The end driving No. 1 over Standage level is improving both in width and for lead, and now worth 1 ton of lead per fathom; I expect this will further improve shortly. The new stope over the above level is worth 8 tons of lead per fathom. In the 31 level north the lode is now in the end, and is gradually improving, though scarcely yielding enough to value yet; we have all the indications of having a good lode as we advance. There is no change in any of the other bargains since last reported.

GWYDYR AMALGAMATED.—J. Roberts, W. Sandoe, Nov. 9: Clementina: In the north end at the 34 the lode is worth fully 1 ton to the fathom, and every probabtlity of improving. At the south end the lode is opening again and letting out water very freely, which we consider a good indication. The shaft sinking below the 34 is progressing very favourably, and there are better indications of lead in the lode.—Aberllyn: In the sump at the No. 2 the lode is still in a very disordered state, owing to the slide or fault which we have reported before. The regular footwall keeps still well defined, and we may find the main part of the lode again shortly. The end at the No. 2 is looking a little better. The lode better defined and producing more blende.

HINGSTON DOWN CONSOLS.—T. Richards, Nov. 9: There is no material change in the engine-shaft sinking below the 12; fair progress is still made, and the lode continues to produce some rich stones of copper ore. In the 12, east of the shaft, the lode contains capel, quartz, gossan, peach, prian, arsenical mundic, and in places rich stones of copper ore, and its general appearance is exceedingly promising. No. 1 lode, in the deep adit level, east of the south cross-cut, continues small, of the same character, containing capel, quartz, arsenical muudic, with a little black and yellow copper ore intermixed.

KILLIFRETH.—John Michell, Joseph Tamblyn, Nov. 10: Hawks's shaft is sunk to the 30; the lode in the bottom of the shaft is worth fully 30l. per fm. We have also about 4 ft. east and west of the shaft where the lode is 3 ft. wide; the eastern is worth 10l. per fathom. In the western we have a very good leader of tin for 2 ft. up from the bottom of the level. The lode in the 20, east of shaft, is still worth 10l. per fathom. The lode in the 20 west is 6 ft. wide, producing occasional stones of tin. In a winze sinking below this level, 12 fms. west of shaft, the lode is very much improved, producing some very rich stones of tin; this we consider of very great importance. The other bargains are without alteration since last reported.

KIRK MICHAEL.—R. Rowe, Nov. 9: The shaft will be deep enough for a new level by Saturday; the lode is about the same as reported last week, carrying a good leader of lead from 4 to 6 in. wide. We shall begin on Monday to line the shaft down to the bottom, for drawing with the machine, cut lodge, and drive out new levels north and south on the lode with all speed. In the 20 driving north on the lode found in the west side we have a strong lode fully 3 ft. wide, and along the bottom and half way up the end there is a good lode for lead 1 ft. wide; the end having got far enough away, I put a set of men on Monday to stope off the side of the level going back towards the shaft southwards; of course since Monday there has not been much time, but I was pleased to see to-day a lode about 2 ft. wide, worth quite 1½ ton per fathom. In the 20 south the end is still in the conglomerate rock referred to last week, and is strongly interspersed with lead throughout, more so than last week. Looking at it to-day I am of opinion it is an immense east and west lode lying immediately at the back of the slide, and running parallel with it.

LADY ANN.—Nov. 9: We have very nice ground, and lead in it. The vein in Westminster lode is the same, and about the same width, and we have in it black jack, or blende, and copper also. The work now going on is altogether very favourable for good results soon. We have saving stuff at surface—a nice boose of ore.

LADY ASHBURTON.—Capt. J. Willcocks, Oct. 10: Since last report we have driven the north cross-cut 10 ft., making the total drivage north of engine-shaft 4 fm. 6 in., and I consider the drivage quite sufficient to prove that there are no other parts or branches belonging to our No. 1 lode. Therefore, I have suspended the north drivage, and have put six miners to drive west on the several branches, and I doubt not, after getting out of the influence of the slide but that those parts or branches will become united, and at the point of junction no doubt but that they will form a very large and productive lode. Judging from the great masterly lode gone down in the level above, we may reasonably expect to see a change of great importance. The 30 fm. level, east of engine-shaft, is driven 5 fms. through ground strongly mineralised for the production of silver and other ores; the lode varying in size, and composed of a little silver, arsenical and sulphuric mundic, white iron, and a little blende with peach; a very promising looking lode indeed. Push on, and we shall make a rich mine of the Lady yet. Engine and pitwork in good working order.

LADY BERTHA UNITED.—T. Neill, Nov. 10: We have no change in the 35 east since my last report. No. 1 stope, in the back of the 40 east, is still looking well. In clearing the new shaft from the 36 to the 40 good progress has been made, and will completed in a few days, after which we shall clear the 40 east as fast as possible. The lode in the stope in the bottom of the 30, east of the new shaft, is looking well, and will produce 10 tons of mundic and 2 tons of copper ore per fathom. We have commenced driving the 30 east by six men; the lode is 6 ft. wide, and very promising. In cutting through the lode in the 30, east of the engine-shaft, we are breaking some good mundic, worth 5 tons per fathom.

LLANDEGLA.—H. Hotchkiss, Nov. 9: The recent discovery in the 25, east of whim-shaft, continues to look well, and the ore is bearing eastward. During the last few days we have taken down some very good leadstuff from this point.

MARKE VALLEY.—Wm. George, Nov. 10: Fair progress is being made in driving the 160 cross-cut south. In the 90 west the lode is 1½ ft. wide, yielding 2 tons of ore per fathom. The stope in the bottom of this level continues to yield 2½ tons of ore per fm. The three stopes in the back are yielding on an average 2 tons of ore per fathom, and the stope in the back of the 40 2½ tons of ore per fathom. At Wheal Jenkin we are getting some good quality tinstuff from the stope in the bottom of the adit. The clearing east as well as the trials being made in the western part will be fully reported on in our next setting report.

MELLANEAR.—John Gilbert, Nov. 9: The 30 cross-cut driving south of Gundry's shaft is extended 43 fms. south of the main lode, and is still in the elvan course, which continues very easy for driving in. In the 60 cross-cut driving south of the main lode, west of Gundry's shaft, the ground is getting mixed with killas and more mineralised, and not quite so hard for driving. The 70 cross-cut driving north of the main lode, east of Gundry's shaft, is driven 41½ fms. north of the main lode, and recently the ground has been better for driving, and looking congenial for copper ore. The lode is 5 ft. wide in the 80 driving west of Gundry's shaft, on north part of lode, yielding 3½ tons of ore per fathom, and still keeping about 2 fms. north of the main lode. In the 90 cross-cut, driving north-west of Gundry's shaft, the ground is mixed with branches of spar, and getting very wet, and showing strong indications of approaching the north part of the lode. The 100, driving west of Gundry's shaft, on the main lode, is 4 ft. wide, yielding 1½ ton of ore per fathom, and looking very promising; but the ground is very wet and troublesome for driving. The lode in the 110, driving west of Gundry's shaft, on the south part of lode, is 3 ft. wide, and yielding 2 tons of copper ore per fathom, and some saving work for blende. In the 110 driving east of shaft, on the main part of the lode, the lode is 5 ft. wide, and yielding 1½ ton of copper ore per fathom, and some good stones of tin occasionally. The ground is still hard for driving the 120 cross-cut north of Gundry's shaft, to cut the main lode; but now the men have finished cutting the plat our progress will be very much better. The lode in the rise in the back of the 110, west of Gundry's shaft, is 4 ft. wide, and yielding 1½ ton of ore per fathom. The lode in the 110 driving west from the old engine-shaft, is 3 ft wide, and worth for tin 10l. per fathom. The lode in the 110, driving east from the old engine-shaft, is 5 ft. wide, and yielding good stones of copper and tin, and looking promising to improve. We shall sample on Tuesday next about 500 tons of copper ore.

MONA CONSOLS.—T. Mitchell, Nov. 9: The works here are being pushed on as fast as possible, and the draining of the water is going on regularly without any interruption. The men have secured the upper part of the whim shaft, which is now in good condition. The shaft downwards appears to be pretty firm. We are daily expecting to reach the roof of the first level.

MORFA DU.—T. Mitchell, Nov. 10: We have no change calling for special remarks in any of the points of operation here this week. All the bargains are progressing fairly well. We have finished loading the vessel with bluestone ore

MOUNT CARBIS.—W. Tregay, G. Johns, Nov. 10: The lode in the winze in the bottom of the 38 is worth 30l. per fathom, and looking well for improvement. All other places as per last report.

MOUNTS BAY.—W. Argall, J. James, J. Rowe, Oct. 31: The 40 and 30 levels are being driven rapidly, and in very congenial ground for the production of mineral, and when they fall in with the cross-course which is ahead of us they may expect good bunches of copper. In both of these level they are opening up ground which will do to stope away for arsenical pyrites after a while. The machinery throughout the mine is working well, and have commenced to repair dressing-house for the dressing of copper ores. During the past month in the eastern shaft at Sydney Cove they have cut a lode about 6 in. wide, producing tin and iron pyrites. This lode runs parallel with Browne's lode, and is about 20 fms. south of it. They have also at this point cut another cross-lode, but have not done much on this yet. The engineers have commenced to fix the engine, and they are pressing them on as fast as possible, as they are anxious to have the mine in fork, and give good returns. The masons are progressing with boiler-house and stack, and all other surface works are going on satisfactorily.

MYNYDD GORDDU.—Thomas Kemp, Nov. 9: Burnett's Engine-Shaft: Since my last the men in the 46 west have cross-cut north from the main level about 6 ft.; in the first 3 or 4 ft. we passed through a good mixture of lead ore, but the latter part has not proved so good; the lode in the breast of cross-cut to-day is principally composed of killas and strings of calc spar, spotted with ore, and is letting out water freely. The part of the lode opened on by the 46 end, east of cross-cut, is composed of calc-spar and killas, strongly intermixed with mundic; the lode still continues very tight for opening, which renders progress slow, but I trust soon to get through this tight bar of ground. The part of the lode carried in sinking the winze below the 34 is principally killas and ribs of calc-spar, intermixed with a little ore; the men here continue to make better progress. The part of the lode opened on by the 12 end, west of shaft, is without any change since last reported, being composed of spar, intermixed with killas, at times showing a little ore. The different tutwork and tribute bargains throughout the mine are equal to last week's valuation. We have put up a new plank roof over the round buddles on the dressing-floors, which will prove a great boon to the workpeople, and also a great protection to the machinery.

NEW GREAT WHEAL VOR.—H. Cowling, Nov. 9: We are still sinking and stoping as fast as possible at No. 2 shaft. Yesterday I was underground nearly three hours, viewing the slabs of tin which the men were raising from the stopes. They handed the largest to me for inspection, and I was particularly struck with one large and rich slab, which was taken from the bottom. I could not but exclaim is it possible to raise such slabs of tin at this shallow depth of 10 fms. 2 ft.? Our lode is still about 6 ft. wide, and we have increased our workings from 3 to 4 fms. in length, and for all that length we have a course of tin, worth at least 75l. per fathom, or 300l. per stope.

NEW WEST CARADON.—N. Richards, Nov. 9: The main lode in the 42 is producing about the same quantity of copper ore as stated in last week's report; lode west of cross-course yielding ½ ton of ore per fathom; east of cross-course 1½ ton of ore per fathom. The lode in the western end of the rise in the back of this level will yield 2 tons of copper ore per fathom. This lode east of the rise will yield 2 tons of ore per fathom; this lode is not quite so large; this we regard as only temporary, as we often get changes of this kind in this locality. There is nothing calling for special remark in the 32 cross-cut, driving south of Hallett's shaft, or on the branch driving east at this level.

NEW WEST GOONIAR.—Absalom Francis, Nov. 9: Since the date of my last report we have securely timbered Foulter's shaft to the bottom and put in a new frame. We are now sinking into clay and sand, imbedded in which we continue to find rich stones of silver-lead ore. Our machinery is working exceedingly well, and the water is being easily kept under with one lift. I have secured proper pitwork to carry through the sinking to the depth of our proposed trial, and where, I feel convinced, we shall open out very rich courses of ore on the Goginan main lode, as well as the north and south lodes, distant only a few fathoms from it.

NEW KITTY.—Wm. Vivian, Nov. 10: The engine-shaft is sunk about 6 fms. below the 24. We are now about to cut a cistern plat at the 24, and fix a standing lift. The sinking of the shaft will be suspended for about a fortnight while this work is being done. In the 24 driving both east and west the lode is producing a little tin, but not to value. The tribute ground in the back of the 14 is producing some good tinstone.

NORTHERN LEAD.—Thomas Tomkin, Nov. 10: The adit level tribute-ground is looking favourable, and yields 10 cwts. of ore to the fathom. The 15 fm. level tribute stopes east section are producing 8 cwts. of ore to the the fathom, and the west section stopes 12 cwts. to the fathom. The 42 fm. level stopes west section are giving a yield of 20 cwts. to the fathom, and the other ground in the Quarry Hazel still 9 cwts. of ore to the fathom. On the whole, the stopes promise a fair yield of ore, the ground being easy, as a rule. The weather is very fine for surface operations. We are pushing forward the needful work at Brandon Walls, and the mine is now drained 21 fms. deep. After we reach the 25 fm. level, I hope in a few days, there will not be much more water to contend with.

NORTH D'ERESBY MOUNTAIN.—R. H. Vivian, Nov. 10: There is no change in the cross-cut from bottom of shaft, except that we are getting into the same sort of lode and matrix as we have in the end driving north-east on the hanging-wall of the lode. This change in the cross-cut indicates we are approaching the hanging-wall of the lode at this point, and there is every probability we shall soon meet with the same rib of rich silver-lead as we have in the shaft above No. 1 adit; the lode is of the same value for lead as last reported.

NORTH GREEN HURTH.—James Polglase, Nov. 4: Both the levels are progressing as usual. The upper level has resumed its appearance. The apparent change last week has disappeared.

NORTH HERODSFOOT.—T. Trelease, Nov. 10: I have set the shaftmen this week to secure the shaft plat, fix ladders and skip-road, and 20 fms. of the level for the sum of 27l., which I hope they will complete in about three weeks' time. There is no change in the 80 end to notice. The stope in this level continue to yield about 8 cwts. of lead ore each. The stope in the bottom of the 50 will yield about 7 cwts. of ore per fathom, and the end still unproductive, the lode being split up; but I am hoping the branches are coming together, which has generally a good influence on the lode. We have sent the greatest part of the lead sold to Looe, and hope to weigh it off in a few days. All surface operations are going on satisfactorily.

NORTH PENSTRUTHAL.—S. Davey, Nov. 10: The 108 is driven west of Highburrow about 21 fms. We have now 26 fms. more to reach the cross-course. In the 120 we have a very kindly lode indeed.

NORTH WALES FREEHOLD.—H. B. Vercoe, D. Douglas: We beg to hand you the following weekly report. The engine shaftmen are getting on well with cutting lodge at the 30, and will complete it next week. In the 30 cross-cut west another portion of the lode has been intersected since our last report about 15 in. wide, composed of a congenial quartz nicely spotted with blende and copper. We continue to drive the cross-cut further west, as the main part of the lode has not yet been reached, although the portion already discovered is of sufficient size to constitute in itself an immense champion lode, and it is also highly mineralised, and produces some rich copper ore. The lode in the No. 2 sump continues quite as valuable as ever, but as we get deeper and nearer the drainage level of the engine-shaft we are now and then troubled with a little water; this will no longer be the case when the main part of the lode has been tapped in the 30, and towards the accomplishment of this important and interesting point we are doing our utmost, and are as sanguine as ever as to the result. There is no change to report in the 20 south of No. 1 sump, nor in the stopes in the roof. The engineers are busily engaged fixing the crushing-mill, and all being well it will be ready to work by the end of next week. The walls of the new buildings, smithy and carpenters' shop, are also in a forward state towards completion.

OLD SHEPHERDS.—R. and J. Nancarrow, Oct. 29: Good progress is being made in sinking the new engine-shaft at the north mine, also in clearing out foundation for the engine-house. In clearing the adit west of western shaft on course of lode they find good stones of lead in the debris, which speaks well for the western ground. This level has been full all the way from shaft. The old quarry, near the south mine, is opening out satisfactorily. In the western ground the cross-cut north of Browne's engine-shaft at 16 fm. level has been driven 25 fms. in a beautiful channel of ground, but nothing has been seen since our last report. Here we purpose opening on the branches before spoken of and as well continue the cross-cut.

OKEL TOR.—H. Bulford, John Rodda, Nov. 10: All the underground department continues to work well. We are driving an intermediate level between the 65 and 80 fm. levels, the lode producing excellent work for tin. Our tin works, as before reported, are on the eve of completion. The stack of the engine-house is finished, a second large pond has been excavated in the hill, the Tangye pump is being put in place, a tramway across our flues is being constructed, and the steam pipes are being connected.

PANDORA.—H. Nottingham, Nov. 8: Engine-shaft: We are making good progress sinking below the 45; the lode is very strong and sparry, with occasional stones of lead and blende. The 45, driving south, is still in a strong, wide lode, and producing 25 cwts. of lead per fathom. The level is being driven round the bend of the lode on the footwall side, and we cannot say yet what the hanging part contains. The winze sinking in this level, 5 fms. south of shaft, is worth 35 cwts. of lead per fathom, the lode being fully 6 ft. wide. The stope over this level is worth 30 cwts of lead and 1 ton of lead per fathom. The stope north of shaft is not looking so well, the lode being much narrower, and is worth at present 15 cwts. of lead and 1 ton of blende per fathom. The two stopes working over the 33 fm. level, south of No. 1 winze, are worth together 30 cwts. of lead and 2 tons of blende per fathom.—Surface: Winding and dressing are being carried on without interruption. Since we put on the new winding rope and got the pulley stands all erected we have made good speed with the draining, and are keeping the crusher well supplied with stuff.

PARYS COPPER CORPORATION.—T. Mitchell, Nov. 10: We have no change to report in the 90 south this week. The ground continues much the same as for some time past. The No. 1 west of cross-cut is also without change of importance. The No. 2 west continues to look very well, and will yield fully 5 tons of copper ore per fathom, and from its promising appearance, we hope it will further improve. In the 90 east of cross-course we are at present cutting towards the north side to prove the part of the lode standing in that direction. We shall be able to say more about this place in a few days.

PENHALLS.—S. Bennetts, R. Harris, Nov. 5: The 80, west from Blue Hills boundary, is producing some tinstuff of low quality. In the 80 cross-cut north a large gossan has been met with, but no other change. Both the 70 and 60 east ends are producing low quality tinstuff. The 60 west, on the south lode, is also yielding a small quantity of tinstuff, but not sufficient to value. The 60 north cross-cut is cleared and secured we believe to the last break in this level. The 55 east end is worth 6l. per fathom. The 50 and 54 west ends are without change. The rise above the 45 is worth 5l. to 6l. per fathom. The 42 west, on the north lode, 7l. per fathom.

PENHALE AND BARTON.—Jas. Evans, Nov. 9: The stopes in the 30 are yielding tin stone of improved quality, and those in the 20 continue as last reported. The lode in the 20 cross-cut from Bullock's shaft is largely increasing in value as distance is gained, and is now worth from 15l. to 20l. per fathom. This, I am pleased to say, is a lode never before discovered in this mine, and it extends the whole length of the sett, which is half a mile in length; but this is not, as I at first thought, the Barton main lode on the elvan, which is still in front of us, and I expect to reach it in 2 or 3 fms. further driving, which we are working at with all possible speed. The indications we meet with are all in favour of increasingly rich tin ground ahead. There is no doubt but that we have now reached a portion of the sett that will amply repay all that the company has expended upon it hitherto. Our machinery continues working very satisfactorily.

PENNANT.—Nov. 10: I am glad to say that the 40 east has much improved. We have now 4 in. of carbonate thickly spotted with lead ore, and will, I am sure, open out a good lode. This is one of the best points we have ever tried. The various stopes are looking well, and the dressing-floors are full of sulphate of barytes and a good quantity of lead.

PHŒNIX UNITED.—John Truscott, H. Harvey, Joseph Hosking, John Rundle, Nov. 9: Setting Report: Old Sump Shaft: The 130 to drive west, by six men, at 13l. per fathom; we hope to intersect the lode at the end of the present month. The 120 to drive west, by six men, at 18l. per fathom; worth for part carried (6 ft.) 9l. per fathom. To strip out side of this level, by four men, at 5l. per fathom; worth 12l. per cubic fathom. To stope the back of this level, by six level, by six men, at 4l. per fathom; worth 14l. per fathom. The 110 to drive west, by four men, at 12l. per fathom; the lode is intersected in this end and cut into 5 ft., which is producing saving work for tin; but we believe the main part is still before us. To stope the back of this level, by four men, at 2s. 9d. per ton; lode worth 25l. per fathom. The 100 to drive west, by six men, at 6l. per fathom; lode worth for part carried (6 ft.) 14l. per fathom. In consequence of the ground now being favourable for driving by hand, we have removed the boring machine to the 80. No. 1 stope in the back of this level, by nine men, at 4l. 10s, per fathom; worth 16l. per fathom. No. 2 stope, in the back of this level, by six men, at 3l. 15s. per fathom; worth 15l. per fathom. The 80 to drive west, by nine men, with boring machinery; lode worth 6l. per fathom. No. 1 stope in back of this level, by six men, at 3l. 15s. per fathom; worth 16l. per fathom. No. 2 stope in the back of this level, by four men, at 3l. 10s. per fathom; worth 20l. per fathom. No. 3 stope in the back of this level, by four men, at 5l. per fathom; worth 12l. per fathom. The 60 to drive west, by four men, at 3l. per fathom; lode worth 8l. per fathom. To stope in back of this level, by four men, at 3l. 15s. per fathom; worth 10l. per fathom. The 50 to drive west, by four men, at 8l. 10s. per fathom; this end is in granite. Driving to intersect the lode west of cross-course. To stope the back of the 40, east of West's shaft, by six men, at 3l. 15s. per fathom; lode worth 20l. per fathom. The 30 fm. level to drive west, by four men, at 11l. per fathom; lode worth 10l. per fathom. No. 1 stope in the back of the this level, by six men, at 3l. per fathom; lode worth 25l. per fathom. No. 2 stope in the back of this level, by six men, at 3l. 15s. per fathom; lode worth 20l. per fathom. No. 1 stope in the back of the 20 fm. level west, by six men, at 4l. 10s. per fathom; lode worth 25l. per fm. No. 2 stope in back of this level, by four men, at 4l. per fathom; lode worth 20l. per fathom. West's shaft to sink below the 120, by four men, at 5l. per fathom; going down by side of lode.—Western Mine: New Engine-Shaft: The 112 to drive west, by four men, at 15l. per fathom; lode producing saving work. The 112 to drive east, by two men, at 3l. 5s. per fathom; worth 5l. per fathom. The 50 to drive west, by four men, at 14l. per fathom; lode large, but at present unproductive. The stope in the back of this level, by six men, at 3l. 10s. per fathom; worth 15l. per fathom. The 40 to drive west, by four men, at 19l. per fathom; lode worth 8l. per fathom. No. 1 stope in the back of this level, by six men, at 5l. per fathom; worth 25l. per fathom. No. 2 stope in the back of this level, by six men, at 5l. per fathom; worth 12l. per fathom. To rise in the back of this level, by four men, at 14l. per fathom; lode worth 8l. per fathom. The 20 to drive west, by two men, at 14l. per fathom; lode worth 5l. per fathom. To drive the 60, east of Stowe's shaft, by four men, at 14l. per fathom; lode worth 9l. per fathom. We set on Saturday seven pitches, at tributes varying from 7s. 6d. to 13s. 4d. in 1l. for tin and copper.

PIONEER.—C. C. Adley, Nov. 10: Silver-lead Mines, Holywell: Bessie's Shaft: In the last report you were informed that we were prevented from working on the best lead here by the water; this has now been cleared out, and work resumed in sinking the sump, which is going down on a fine course of ore, improving in depth, while down this morning about 12 fms. of ground was taken out from the bottom in solid stones, heavier than a man could lift, and equally

rich ore left in sight. The north level is also being driven through very rich ground, and judging from appearances we shall be able, all continuing favourable, to sell 30 tons next month. At the sale day we found that we could only put up 10 tons, owing to the hindrances previously reported. In order, however, to guard against interruption from storm waters in future, a level will be driven through a newly discovered east and west lode to connect the workings with a swallow close by; this it is expected will drain off the water to about 20 yards below our present level. This new east and west lode is 3 ft. wide, containing good ore, and looks very encouraging; it will pay costs while driving, and may lead to further richer discoveries.—Blackwell Shaft: There is no change in the ground here, and we may expect to cut into a good body of ore at any stroke of the pick. We are pushing on as fast as possible to the junction of the Acrefer or Milwr and Mount lodes, which have been so very productive in contiguous and celebrated Milwr Mine. We may fell certain that when we intercept the above lode we shall strike into rich deposits.—New Shaft: Very fair progress is being made with the sinking.—Engine-Shaft: The 60 east continues very hard. We are apparently approaching a cross-vein, and expect to prick into it daily. The 60 south in Petticoat lode continues to yield very nice ore, but there is no material change in its character. In the rise in the roof of the 60 nice lumps of ore are being got, and I am of opinion that within 10 to 15 yards further we shall strike into a good bunch of ore. The tributers in the 50, on the north and south lode, are earning very fair wages, which will also be profitable to the company.—Hedge Shaft: This is progressing satisfactorily.—Dressing-floors: We are busy with the dressing. The samplers have sampled 10 tons; had it not been for interruptions from wet and stormy weather as previously reported we could have easily sold 30 tons this time. Every effort will be made to accomplish that quantity next sale.—Copper and Lead Mines, Harlech: We have commenced to drive on the cross-course towards the main lode; we cannot at present say how large the lode is, but so far it seems to be about 2 ft. wide, is highly mineralised with copper, traces of sulphur, and spar, with water issuing out freely. The cross-course has every appearance of having carried the main part of the new lode with it.

POLROSE.—W. Bennetts, Nov. 9: The men are making good progress with the rise above the 100 on Margaret lode, in which we are meeting with occasional stones of good tin. In the 100 east the lode is from 2 to 2½ ft. wide, yielding saving work for tin. The lode in the 100 west is a little smaller this week, but presenting no other change to notice. The ground in the 90 cross-cut south is a little easier, being of a light killas, and much mixed up with prian—a most valuable channel of ground. We have taken down the lode both east and west of the 90 cross-cut north this week. The lode in the western end keeps up its size and productiveness. In the eastern end it is a little disordered by a small cross-head, but I hope to see an improvement here in a few feet further driving; this end is still letting out a stream of water. We are pushing on the 70 cross-cut north; the end is mineralised with blende and mundic, presenting the same appearance as the ground in the 90 cross-cut just before cutting the copper lode—this level is completely drained by the 90, and this is a good feature. There is nothing calling for remark in the western adit driving on the caunter lode.

PRINCE OF WALES.—S. Roberts, G. Rowe. Nov. 9: The shaft is completed to the 102, and the steam whim drawing from that level, is working well. In the 102 cross-cut south fair progress is being made with a full pare of men, and from which the water is fast increasing. We have four men at this level cutting tip-plat. The 90 end east lode is much improving, now 3 ft. wide, worth 8l. per fathom for copper ore, with indications of further improvement as the end advances. No. 1 stope, in back of this level, lode 4 ft. wide; worth 8l. per fathom. No. 2 stope same as reported last week. In the 90 end west we are clearing the end of stuff in order to blast down the lode, which, as far as can now be seen, is 4 ft. wide; worth 10l. per fathom for tin. The tribute pitch in back of this level is looking well.—Goodluck: The stope in back of deep adid, the great tin lode, lode 5 ft. wide, worth 12l. per fathom.

ROMAN GRAVELS.—A. Waters and Son, Nov. 10: The 125 cross-cut east has cut through a branch of spar which seems to be the hanging-wall portion of the Roman lode, but not having discovered any ore of note we shall resume the drivage on the footwall division forthwith. The 110 south is in a lode 7 ft. wide, worth 25 cwts. per fathom. The 95 south is worth 2½ tons per fathom. The winze below this level is worth 1 ton per fathom, the main ore course being on the footwall side of the workings, and which will be shot down after the winze is holed to the 110. The 80 south on east part of the lode is worth 1½ ton per fathom, and likely to improve shortly. The 65 south on east wall shows a lode 5 ft. wide, containing more spar than of late, and is now worth 11 to 12 tons of lead ore per fathom. The winze below this level going down in front of the 80 end is 6 fms. deep; lode worth 9 tons per fathom. The 50 south is worth 1½ ton per fathom. The middle level below the 40 south is worth 5 tons per fathom; this bunch dips in front of the present 50 end. Other points as for some time past. We have to-day sampled 150 tons of lead ore, for sale next week.

SILVER HILL.—George Rickard, Nov. 9: Since I last wrote you the ground in the tunnel level cross-cut driving north into the hill has become somewhat stiffer, but still maintains its mineralised character, containing leaders of mundic and quartz, spotted with copper ore. We have driven west from the tunnel on the No. 3 lode 2 fms. 3 ft., which is from 3 to 4 ft. wide, composed of capel, quartz, and peach, intermixed with mundic throughout, and containing a portion of silver and tin ores, but not enough to set any value on.

SORTRIDGE.—Wm. Skewis, Nov. 10: We are still making every effort to clear the deep adit; and for the purpose of ventilation and security of the men there engaged we are sinking a small shaft from surface to communicate with it. As soon as this is accomplished, I hope speedily to get through the choakage.

SOUTH CARBIS.—W. Tregay, G. Johns, Nov. 10: The lode in the 15 east is worth 16l. per fathom. In the 15 west end the lode has been irregular, with a good branch of tin at present on the footwall worth 10l. per fathom.

SOUTH CONDURROW.—W. Rich, W. Williams, H. King, Nov. 9: The 60 end, east of Plantation shaft, is worth 8l. per fathom. The stope in the back of this level is worth 10l. per fathom. The 70, east of King's, on the north part of the lode, is worth 7l. per fathom. We have passed through a small cross-course in the 70 west, on Marshall's lode; the lode seems to be opening out wider as we extend west; the end is now worth 10l. per fathom. The rise in the back of the 60 fm. level west is worth 20l. per fathom. The 60 end east of King's, is worth 12l. per fathom; the lode in the back of this level is worth 15l. per fathom. The 50 end east is worth 8l. per fathom. A rise in the back of this level is worth 10l. per fathom. The lode in the winze below the 40 east is worth 10l. per fathom. The 40 end, west of Marshall's shaft, is worth 10l. per fathom. A stope in the back of this level is worth 10l. per fathom. The winze below the 40, east of Marshall's, is worth 8l. per fathom. We are urging on the sinking of the shaft below the 40 as fast as possible. The powerful steam-whim lately erected to command the western ground was set to work last Saturday, and apparently works well.

SOUTH DARREN.—Henry James, Nov. 10: The sinking of Bishop's shaft is progressing well, in ground very congenial for ore. The lode is on the north side, and not cut into. We are breaking down the lode in the 120 east, about 6 ft. back from the forebreast, where it is from 3 to 4 ft. wide, and worth about 2 tons of lead ore per fm. No lode has been taken down in the 120 west during the week. The end is showing very favourable indications of soon getting into good ore ground. We have come up to a cross joint in the 110 end west, and before we drive through it I have put the men to strip down the lode in the side of level, from the end back to the winze, worth from ½ to 2 tons of lead ore per fathom. After this is done the driving will be resumed. There is no material change to report elsewhere. The machinery is in capita condition, and working very well, with a fair supply of water.

SOUTH DEVON UNITED.—W. Hooper, Nov. 10: Setting Report: The 110, east of Brook engine-shaft, has been driven during the past month 1 fm. 4ft. 8ins., set to six men, at 10l. per fathom. The lode is 4 ft. wide, with a value of 15l. per fathom. The appearance of the end is much the same as for some time past. We are still opening out good ground for stoping, and doubtless will, as it is being extended east, as the 100 was driven through similar ground for some distance beyond our present point of operation. No. 1 stope in the back of this level is set to four men, at 3l. 10s. per fathom. The lode is 3 ft. wide, with a value of 6l. per fathom. No. 2 stope is set to four men, at 3l. 5s. per fathom. The lode is 3 ft. wide, with a value of 6l. per fathom. No. 3 stope is set to four men, at 5l. per fathom. The lode is 4 ft. wide, with a value of 10l. per fathom. No. 4 stope is set to four men, at 4l. per fathom. The lode is 4 ft. wide, with a value of 7l. per fathom. The 100, east of Brook engine-shaft, has been driven during the month 3 fms., set to four men, at 3l. 10s. per fathom. The lode at present is very much disordered, and not being satisfied we have the main part we have the men to cross-cut north to prove whether there is any more lode standing in this direction. No. 1 stope in the back of this level is set to four men, at 4l. per fathom. The lode is 4 ft. wide, with a value of 6l. per fathom. The 90, east of Brook engine-shaft, has been driven during the past month 1 fm. 0 ft. 6 in., set to two men, at 10l. per fathom. The lode is 5 ft. wide, with a value of 6l. per fathom. No. 1 stope in the back of this level is set to four men, at 3l. 5s. per fathom. The lode is 4 ft. wide, with a value of 6l. per fathom. The 80, east of Brook engine-shaft, has been driven during the past month 5 ft. 5 in., set to two men, at 11l. per fathom. The lode is of a very promising character, composed of capel, quartz, mundic, and stones of copper ore, and will undoubtedly, as it is extended east, prove equally as good as it was some fathoms westward. No. 1 stope in the back of this level is set to four men, at 4l. 10s. per fathom. The lode is 5 ft. wide, with a value of 10l. per fathom. No. 2 stope is set to eight men, at 6l. per fathom. The lode is 5 ft. wide, with a value of 10l. per fathom. The lode in the adit west of old sump shaft has been driven during the past month 2 fms. 1 ft. 6 in., set to two men, at 3l. The end presents a very promising appearance. Of course you are aware it is very shallow; and as the deeper levels are extended west under this point I have no hesitation in saying that valuable discoveries of copper ore will be made. Martin's shaft has been sunk during the past month 2 fms., set to six men and six labourers at 21l. per fathom. The ground has become a little harder, consequently the progress in sinking same is not quite so rapid. The shaft is now down 23 fms. 4 ft. Our hauling and dressing machinery is working satisfactorily.

SOUTH PENSTRUTHAL.—Stephen Davey, Nov. 10: We have got to the bottom of Walton's engine-shaft, and the cuttting down will be completed in a few days. Our progress in forking has been very good.

SOUTH WHEAL CREBOR.—J. Goldsworthy, Nov. 9: We are progressing satisfactorily with the necessary work for the reception of the engine, &c. The work is being pressed on as fast as the weather will permit.

TAMAR (Silver-Lead).—R. Goldsworthy, Nov. 10: Saturday last being our setting and pay, the following bargains were let:—To drive the 57 south, by six men, at 7l. per fathom, the lode having a fine appearance, being 3 ft. 6 in. wide, and spotted throughout with silver-lead, also producing 3 tons of fluor spar per fathom, with promise of further improvement. To drive the 27 south, by four men, at 7l. 10s. per fathom; the lode is 4 ft. wide, and is composed of capel, friable spar, and rich stones of silver-lead, and judging from its promising appearance, I think we are approaching a valuable run of ore ground. To drive the shallow adit south, by six men, at 6l. per fathom; owing to the late heavy rains we have had to suspend the sinking of the new shaft. The men are now employed driving north to meet the shallow adit at 7l. per fathom, and as they all work on Saturday afternoons and Sunday nights we have to pay the men the extra time for drawing water, &c. Those points are being pushed forward as fast as the nature of the work will allow.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, Nov. 10: Tankerville: The 220, west of Watson's engine-shaft on the No. 1 north lode, is worth 1¼ ton of lead ore per fathom, and the vein looks likely to improve in value soon. The 220 east shows a lode 4 ft. wide, nice looking white spar and lead ore, worth 2½ tons per fathom; this end shows good indications for further improvement. The stope in the said level, east of shaft, is worth 90 cwts. per fathom. No. 1 stope, west in ditto, is worth 30 cwts. per fathom. No. 2 stope west is worth 35 cwts. per fathom. The stope in the 220, west on Tankerville lode, is worth 15 cwts. per fathom. The stope east of shaft on the same lode is worth 20 cwts. per fathom. No change of note in the 206 cross-cut north of shaft. The stope in the 206, west on Tankerville lode, is worth 20 cwts. per fm. The rise in the 206, west on Roberts's lode, is worth 25 cwts. per fathom. The 206, west of cross-cut on the No. 1 north lode, is worth 20 cwts. per fathom. The 206, west of No. 2 cross-cut on the north lode, is worth 10 cwts. per fathom. The 182, west of shale on old lode, is yielding good stones of lead ore. The stope in the back of the 100, east of cross-cut on the north lode, is worth 10 cwts. per fathom. No. 1 stope in the 74, west on the south lode, is worth 10 cwts. per fathom. No. 2 stope, west of ditto, 20 cwts. per fathom. The stope in 62, east of shaft on said lode, is worth ¾ ton per fathom. The 35, east of old shaft cross-cut on Tankerville lode, is worth 10 cwts. per fathom. There are four pitches at work, by 10 men, at tributes varying from 6l. to 3l. 15s. per ton of dressed ore. Pump sump shaft, below the Boat level, is going down with fair speed. We have to-day sold 60 tons of No. 1 quality lead ore for 550l. 10s., and 10 tons of No. 2 for 71l. 10s.—Pennerley: The 130, east of engine-shaft on Big Ore lode, shows a strong sparry vein 4 ft. wide, yielding orestuff. The 120, east on Big Ore lode, is also yielding good stones of soft lead ore. The 120, west of cross-cut on Warm Water, is in a lode 1 ft. wide, and yielding stones of ore. The 120, east of cross-cut, is not far enough to reach the dip of the ore ground seen in the 80. The 80, east of Big Ore vein, is without ore to value. The 70, east on the same lode, is worth 2 tons per fathom. The stope in the bottom of this level west is worth 15 cwts. per fathom. No. 2 stope 20 cwts. per fathom. The winze and stope in the 80, west on Warm Water lode, are worth 25 cwts. per fathom. No. 1 stope in the back of the 80 west is worth 20 cwts. per fm. No. 2 stope west 20 cwts. per fathom. We are driving a cross-cut south of Big Ore lode in the 20, east of Bland's shaft, by way of trial. We have nine men clearing and securing Potter's Pit There are two pitches, by six men, at 6l. per ton each. We have to day sold 25 tons of lead ore for 229l. 7s. 6d.—Bog Mine: The new plunger lift lately fixed at the 100 is working splendidly, so that the pitwork is now in first-rate trim from that point to surface, a distance of about 155 fms., the shaft also being in good condition as far as we have gone. The drop lift is down to the 115, the water now being drained 2¼ fms. below the 100. Every thing working well. The 70 cross-cut, north-east of main lode towards the side lode, makes fair progress. The Boat level, east of Bunting's shaft on the middle lode, shows veinstuff 2 ft. in width, composed of white barytes and blende of a promising character. There are nine pitches, by 18 men, at 110s. per ton for lead and 25s. per ton for blende. We have to-day sold 15 tons of lead ore for 139l. 2s. 6d., and 35 tons of blende for 147l. 17s. 6d.

TAVISTOCK GREAT CONSOLS.—H. Treganowan, Nov. 9: In driving west of the rise in the deep adit level, on the Rix Hill lode, I am pleased to say the lode is very much improved in character, being composed of beautiful capel, quartz, peach, and arsenical mundic, and yielding some good stones of copper ore, and holds out great promise of further improvement. I feel confident as to the future of this mine, and believe if properly developed Tavistock Great Consols would stand second to no other mine in the district.

TREVINCE CONSOLS.—J. Mayne, Nov. 10: The Wheal Moor lode is worth fully 15l. per fathom for tin and copper.—New Middle Lode: In sinking a shaft down about 6½ fms. from surface, we have intersected this lode, which is about 12 in. under, composed of gossan, mundic, and copper. The lode, I am pleased to say, is increasing in size and improving in value every foot it is being sunk. I am of opinion that this is the rich lode the old workers must have had so rich only about 12 fms. from surface, and no doubt, when that depth is reached, we we shall have the same.

TRESAVEAN.—Josiah James, Oct. 29: We are still clearing the adit shaft on Harvey's cross-cut. This shaft is about 25 fms. deep, and we have about 6 fms. of debris more to draw to get to the adit. Here our progress has been slow, having to put in close timber for 10 fms. under the surface. There are 5 men clearing attle under the adit in Harvey's engine-shaft, which will be finished by the early part of next week so as to be ready for putting down pitwork. We have timbered and secured old east shaft, and I have put the men to repair William's engine-shaft, as I expect to have much drawing through the same. There are four men clearing and repairing the deep adit north of the great copper lode towards Caddy's lode, which will take about a fortnight. I have also some men making a reservoir, so as to receive water for dressing purposes. We have not yet cleared the lobby used to drain the boilers at Harvey's engine-shaft, which will take about a month. The masons have put the roof on stamps boiler house, and will now begin to build loading for steam capstan. Our carpenters are busy preparing woodwork for the 90-in. engine-house, and also for the steam stamps. The cylinder and some other parts of the 90-in. engine are on the mine, and the beam is to be brought there on Tuesday next.

VAN CONSOLS AND GLYN.—J. Roach, Nov. 9: The drivage in 70, west of Murray's shaft, is still continued on north wall of lode, which contains irregular strings and cubes of lead. This will soon be communicated with the winze sinking under the 60 fm. level. At this point the lode is very wide, about 60 ft., and as some excellent lead has dipped south of the winze and further into the lode we expect to find ore in large quantities when we cross-cut its full width. The 60 west is also driving on the north wall of the lode, where we have a little blende in the forebreast and stones of lead standing south of the level. The winze under the level will soon be as deep as the 70. About 20 fms in advance of the 60 forebreast we have cut a winze plat in the 50, where we intend to sink and test the character and value of the lode, as well as for ventilating the level underneath. The 50, west of Gundry's, is still in compact carbonate of lime, but water now percolates from the forebreast, which indicates our approach to a change in matrices. When this occurs we fully expect the pleasure of reporting the discovery of a good course of lead. No. 1 stope in the western ground has very much improved to-day, yielding large blocks of almost solid lead. The other stopes are without change to notice. Tenders for the parcel of 40 tons of lead will be at hand in a day or two, which we shall be prepared to deliver to the purchasers on Monday next.

WALKHAM UNITED.—Wm. Phillips, Nov. 10: The rise from the 20 east having been put up in a northern branch of the lode, we have not yet holed to the winze from the adit level. By cutting in a little to the south we hope soon to effect a communication. As soon as this is done some good ground will be available for stoping. In the adit level east the lode is 5 ft. wide, yielding a little saving work for tin, being composed principally of mundic and peach, and looking very promising. The stopes in back and bottom of the adit level are still producing good work for the stamps. In the coming week we shall sack some tin for market.

WEST CARADON.—N. Richards, Nov. 9: There is a slight improvement in the 33, driving west of main cross-course, on Gilpin's lode: the heading branch, on the footwall, is producing a little copper ore. This lode in the adit level is also improving, producing some very rich stones of black and yellow copper ore. After having the adit level cleared on the main lode we yesterday carefully examined both backand bottom of the same, and find a good branch of ore both east and west of rise for several fathoms in length. This looks well for the ore holding back from New West Caradon, as we are working on the same lode in that mine. The rise above referred to will yield fully 1 ton of copper ore per fathom; a very promising looking lode. All other places are quite equal to what we reported last week.

WEST CREBOR.—John Andrews, Nov. 9: Owing to the heavy rains during the past week our surface operations have not progressed so fast as we could wish, consequently the poppet heads or shaft tackle is not yet inits place, but as the weather is now better we hope it will be in a day or two. The 30 ends, both east and west of shaft, are now in regular course of driving, and during the past week we have broken some good stones of yellow ore and mundic from the west end, but there is no change in the 30 east.

WEST HOLWAY.—R. Rowlands, Nov. 10: In the new shaft the lode is from 6 to 7 ft. wide, composed of fine congenial spar with a mixture of lead ore, and I expect to meet with a large deposit here very shortly. In the 110 level west the lode is composed of spar, limestone, and shale, intermixed with steel ore of a very rich character. The rises in the 80 are looking as well as ever, and at Ram shaft we have intersected a small joint containing lead, and there is every appearance of our being close to a lode.

WEST LISBURNE.—Lyle Glanville, Nov. 10: I have placed a full pare of men to timber the adit, which in some places is in a dangerous condition. The rough weather has prevented our getting on with surface operations as well as I could wish. I am now awaiting the axle from the foundry, and when it arrives shall at once place the same in its place. The prospects of the mine are most encouraging.

WEST KITTY.—Wm. Vivian, Nov. 10: In the 90 driving east the lode is about 2 ft. wide, producing rich stones of tin. In the 80 driving east the lode is producing a little tin, but not to value. In 72 driving east the lode is worth 18l. per fathom. In the 60 driving east the lode is worth 30l. per fathom. In the 50 driving west the lode is worth 10l. per fathom. In the rise in the back of the 72 the lode is worth 8l. per fathom. The cross-cut driving south of engine-shaft at the 60 has been driven 20 fms.; 10 fms. more were let on Saturday last to drive at 10l. per fathom. I consider this will intersect the lode.

WEST POLBREEN.—Wm. Vivian, Nov. 10: The cross-cut driving at the adit level still continues in the elvan course. I am hoping we shall shortly get through the elvan course and intersect the lode, and I am also hoping we shall realise some of those expectations we are entertaining.

WEST VOR.—S. Harris, Nov. 10: I am now come from underground, and am pliased to say the lode in the adit level, driving east of cross-cut, continues to look well. I never saw it more congenial or producing more tin than it does today. We are making good progress in driving, by four men at 9l. per fathom.

WEST WHEAL TOLGUS.—John Gilbert, Nov. 10: Richard's Shaft: The lode in the 105, driving west of shaft, is 4½ ft. wide, and yielding occasional stones of copper ore. There is a very large stream of water coming from the end which has drained the tribute pitches in the bottom of the 95. We consider this a good indication, and from the dip of the ore in the western pitch we are expecting an improvement in this level very soon. The lode in the 95, driving west of shaft, is 3 ft. wide, composed of spar, mundic, and some good stones of copper ore. The lode in the 85, driving west of shaft, is 5 ft. wide, and yielding 1 ton of rich copper ore per fathom, and looking promising for further improvement. This level has recently passed through a small cross-course, which has very much improved the appearance of the lode. We have set 7 pitches to 21 men, at an average tribute of 8s. 9d. to the 1l. We calculate to sample on Tuesday next about 140 tons of good copper ore.

WHEAL BOYS.—W. T. White, Nov. 8: The men are making very fair progresr in clearing up the engine-shaft from the 40 to the 50, and hope soon to complete the same. We shall then have improved ventilation for working in the 50. We have now set the 50 to drive west of the cross-cut, on the copper lode, to two men, at 4l. 10s. per fathom tutwork, and 5s. in 1l. for the ore; the fode in this end is not large, but produces good quality ore, and will lay open tribute ground. We hope to get to the 60 next week, when we anticipate meeting with something good.

WHEAL COATES UNITED.—W. H. Martin, Nov. 9: The new lode in the 80 south cross-cut is over 8 ft. wide, of a similar composition as the Towan lode; it produces tin, but not sufficient to value; after the cross-cut is extended sufficiently I shall recommend to extend on this lode. I have a strong opinion it will open up very productively, as it contains all the elements for producing tin. In the future cross-cuts must be driven in the 70 and other levels to open on this lode. The lode in the 70 west is showing more mundic, and opening wider; since the patch of elvan seen in the south side it is not so tinny throughout. We have communicated the winze with the rise in the back of the 60, which has greatly improved the ventilation both in the 50 and 70 east levels. The winze men have returned to driving the 70 east end. The rise men have started a new stope front the back of the 60. The lode in the 50 east end is strongly charged with mundic for 6 ft. wide; it contains more mundic than any other place seen its mine. At the 70 we fixed a new air-machine and pipes to ventilate the 70 west and end stope.

WHEAL FORTUNE.—Wm. Knott, Nov. 9: The lode in the end of the 40, west of north cross-cut, is 4 ft. wide, composed of capel, quartz, peach, and prian, interspersed with mundic and copper, and promising improvement. In the back of the 40, east of Cook's shaft, a branch of silver has been discovered 6 in. wide, which has given per assay of an average sample 1194 ozs. of fine silver to the ton; this sample was taken from about 1½ cwt. of the branch. The mundic lode to the south of the silver branch is 2¼ ft. wide, consisting of solid arsenical mundic. We shall now put a pare of men some fathoms east of this point to cut into the south side, and ascertain whether the mundic exists going east, and if so it is more than probable we shall find the junction of the Will and Harrowbarrow lodes. The lode in the end of the 30, west of Bennetts' shaft (Wheal Brothers), is 18 in. wide, composed of flookan, prian, and quartz, with a leader of carbonate of iron 2 in. wide, showing occasional spots of silver-lead. The 30 east is not yet cleared and secured with timber, but we expect to see the end in a day or two. The lode in the stope in back of this level is 2½ ft. wide, with a leading branch of carbonate of iron 2 in. wide, yielding 65 ozs. of silver to the ton.

WHEAL GEORGE.—C. Kneebone, Nov. 10: The adit level being driven north of cross-cut is without material change, producing lead in small quantities along the footwall. Then 2 ft. of flookan, mixed with a little soft lead; and on the hanging side we have the plumbago of the usual quality, but the width is not proved. The 5 below adit is now extended 3 fathoms east on the Pool lode, which shows a leader of flookan 7 or 8 in. wide, nicely mixed with soft lead, good saving work. The Roman lode has been cut into at this point for 2 ft., and looks highly promising. The interstices are filled with gossan and carbonate of lead, and I anticipate an improvement on both lodes as we advance. The rails, &c., are brought on to the mine, and we expect to complete the tramway in the south mine to-morrow.

WHEAL JANE.—J. Reed, Nov. 9: In the 60 cross-cut driving north, in the north part of the Great Flat lode, there are patches of killas intermixed with the lode: worth for tin 13l. per fathom. The two stopes in the back of this level are each worth for tin 10l. per fathom. The stope in the back of the 50 is worth for tin 13l. per fathom. The tribute pitches throughout the mine upon the Great Flat lode continue to look well.—Ready Money Lode: The stope in the back of the deep adit east from Gilbert's shaft, and east from rise, is worth for tin 9l. per fathom. The driving west from No. 1 cross-cut deep adit is worth for tin 8l. 10s. per fathom. The driving west from Gilbert's shaft shallow level is worth for tin 9l. 10s. per fathom. The stope in the back of the shallow level east from rise is worth for tin 10l. per fathom. The stope in the back of the shallow adit west from rise is worth for tin 10l. 10s. per fathom. In the 16 cross-cut, south from Gilbert's shaft, the driving has passed through what I believe to be the south part of the Great Flat lode; it is fully 12 ft. wide, and worth for tin 12l. per fathom. We shall open upon its course as soon as the cross-cut advances, so as to give room. In further exteading this cross-cut about 8 fms., we expect to cut the Ready Money lode. The future prospects of the mine are very cheering.

WHEAL FEEVOR.—W. T. White, T. C. King, Nov. 8: The sinking of the engine-shaft below the 90 is still being carried on as fast as possible, and the men are making fair progress in so doing; the shaft is now down between 8 and 9 fathoms, and we expect in another six weeks with fair speed to complete the sinking to the 100. The lode in the 90 west is without change, same as last reported, opening up profitable ground. The rise in the back of this level we are forcing on with all speed, and when communicated to the 80 it will greatly improve our workings at the 90, as well as open up a good section of ground. The lode in the 80 west appear to be improving. All points on the middle lode seem much the same, as well also as the bargains in the eastern part of the mine.

WHEAL UNY.—W. Hambley, J. White, W. Prophet, Nov. 10: The lode in the 170 east of Hind's engine-shaft contains tin, but not enough to value. This point, as well as the sinking of the shaft, we hope to push with more vigour in about two weeks from this, when the shaft tackle and pulley-stands will be fixed and in working trim. We have changed the well-works at the winding-engine, and can now work the same more economically. No change in any of the other points since out last, each one yielding its usual quantity and quality of stuff.

YEOLAND CONSOLS.—J. Manley, Nov. 9: The lode in the deep adit level as far as cut into (about 5 ft.) presents a most masterly appearance, it is composed of quartz, peach, prian, and good saving work for tin.

ENGLISH AUSTRALIAN GOLD MINING COMPANY.

A very satisfactory report from Mr. Mark Pollard, the mine manager at Fryerstown, has been received by the mail Nov. 7, and will be found in another column. The accounts for the four weeks ending Sept. 26, received by the same mail, show the receipts for the month to have been 1105l. 9s. 9d.; expenditure, 505l. 8s. 10d.; leaving a profit of 600l. 0s. 11d.

The directors have devoted much attention to ascertaining and reducing to a minimum the loss of gold which occurs in extracting the metal from the quartz. They have had samples of the quartz, pyrites, and tailings assayed by Mr. Daniel C. Griffiths, F.R.G.S., of Coleman-street, assayer to the Bank of England, who found in the B. stone, containing nodules of gold, silver, 8 ozs.; gold, 663 ozs. 18 dwts. 8 grs.; E.R. (stone from the eastern reef), silver, 1 dwt.; gold, 1 dwt. 12 grs.; W.R. (stone from western reef), silver, 1 dwt.; gold, 1 dwt. 12 grs.; tailings, silver, a trace; gold, 3 dwts.; pyrites, silver, 27½ dwts.; gold, 2 ozs. 13 dwts. 21 grs., per ton of 20 cwt. The tailings, or sand, have also been tested by two independent authorities in Victoria. Mr. J. Cosmo, the Government analyst, certifies that the sample submitted to him contained 1 oz. 6 dwts. 3 grs. of gold to the ton; whilst Mr. Charles Edwards, of Sandhurst, states there was "not even a trace of gold in the 46 ozs. treated." The wide variation in the several assays of the tailings will show the difficulty attendant on all attempts to ascertain the loss of gold in extraction, while the enormous difference between the stone marked E. and the stones marked E.R. and W.R. emphasises the remarks of the board in their last annual report as to the misconceptions likely to arise from basing estimates of success or failure in gold mining on the results of analyses of small quantities of stone, however carefully selected. The board have arranged to have on view at the company's office, on Thursday next, Nov. 17, between 11 and 3 o'clock, specimens of rich quartz containing nodules of gold, bar gold, tailings, and pyrites.

SOUTH AUSTRALIA—THE MOONTA MINES.—We have received a copy of the annual report of the directors of the Moonta Mining Company, as also the report of the superintendent of the mines. The directors state that they "regret to report that the copper market continues in a depressed state, and that the fall in the price of copper since Feb. 28 last has entailed an estimated loss of 5223l. 15s. 2d. on the valuation of the produce on hand at that date. The mines continue to maintain their productiveness, the ore raised during the six months amounting to 10,333 tons gross weight, averaging 19¾ per cent. of fine copper on net dry weight. During the half-year 1614 tons of copper and 250 tons of ore have been shipped to England on consignment." The superintendent's report gives details of the operations which have been carried on and the present aspect of the property, and concludes as follows:—"The Darlington rock-boring machinery is being utilised in connection with the sinking of Taylor's shaft below the 200, the driving of the 130 and the stoping of the lode in the back of the 160. In each case it possesses a great advantage over hand-labour; in the two former more especially, because of the increased speed with which the work is advanced, and because of the greater economy with which it is carried out. The rate of sinking and driving (working the same number of cores per week at each place) is 100 per cent. in excess of hand-labour. At the stope where the ground is specially suited for this machinery, and where speed is of minor consideration as compared with economy, the cost, including all charges, is 50 per cent. less than would be incurred by the ordinary process of hand-labour. At some of the lodes during the half-year satisfactory discoveries have been made in connection with exploratory operations, so that with only a moderate advance in the price of copper, the mine would at once be placed in a very prosperous condition." The establishment consists of 12 officers, 742 miners, 98 mechanics, 170 labourers, and 261 boys at the mines, and 2 officers in Adelaide, making a total of 1285 persons employed by the company.—*South Australian Advertiser, Sept.* 30

CARNARVONSHIRE GREAT CONSOLS.—We are pleased to announce that this mine (formerly known as Llanrwst), having been reconstructed with the support of a large number of shareholders (who have taken amongst themselves and friends 20,000 shares), is now at work and getting well in fork; the No. 1 stope in the adit is yielding 25 cwts. of lead per fathom. In a week or two all the stopes will be in full work, and the sinking of the shaft will be proceeded with, so that in the course of a month or two this mine will resume sales of lead, and as the lodes already so productive will be opened upon at deeper points there is every reason to believe that the sales of lead will be from 75 to 100 tons per month.

TAMAR SILVER-LEAD.—The recent discovery in the 27 fathom level, so rich in silver, still holds good. The new shaft is being sunk with all speed, and will strike the lode at about 40 fathoms from surface. This operation is being looked forward to with much interest by the mining men of the district, it being a tradition in the locality that in this south ground belonging to the Tamar Company enormous deposits of silver-lead exist—a tradition which appears to be more than mythical, from the fact of so rich a lode being struck at the place indicated. If shareholders in this mine continue to exhibit the patience they have heretofore shown there is little doubt but that they will be amply repaid for their faith in this mine.

WHEAL FORTUNE.—Since the discovery of 12,000l. worth of silver in this mine in 1878 at the junction of the Well and the Harrowbarrow lodes adjacent to Cook's shaft, much time and money have been spent in searching for its continuation at points both east and west of the shaft. Until last week, however, no satisfactory result was obtained, but we are now informed that as some tributors were working on what at first was seemingly but a poor branch of mundic in the back of the 40, east of Cook's, the lode opened up into a masterly one of solid arsenical mundic, and, to the astonishment of the men, introduced a small branch, 3 in. wide, of wire-silver, which afterwards increased to a width of 6 in. These two lodes, lying side by side, are each of the richest quality, a stone from the silver ore yielding on assay 11½ ozs. of fine silver to the

ton. The shareholders and those who take an interest in legitimate mining will be pleased to learn that this discovery is expected to lead to a very important financial success.

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The Mining Market: Prices of Metals, Ores, &c

METAL MARKET—LONDON, NOV. 11, 1881.

IRON.	£	s. d.	£	s. d.
Pig, 3MB, f.o.b., Clyde...	2 11 0-		—	
,, Scotch, all No. 1 ...	2 12 0-		—	
Bars, Welsh, f.o.b. Wales	5 10 0-		—	
,, ,, in London.	6 0 0-		—	
,, Stafford., ,,	7 0 0-	7	5 0	
,, in Tyne or Tees ...	5 12 6-	5	17 6	
,, Swedish, London...	10 5 0-	10	10 0	
Rails Welsh, at works ..	5 10 0-	5	12 6	
Sheets, Staff., in London	8 10 0-		—	
Plates, ship, in London .	7 10 0-	7	15 0	
Hoops, Staff., ...	7 10 0-	8	0 0	
Nail rods, Staff., in Lon.	6 15 0-	7	5 0	
STEEL.				
English, spring	12 0 0-	18	0 0	
,, cast	30 0 0-	45	0 0	
Swedish, keg	15 0 0-		—	
,, fag. ham.	15 10 0-		—	
LEAD.				
English, pig, common..	15 2 6-		—	
,, ,, L.B.	15 10 0-		—	
,, ,, W.B.	15 10 0-	15	15 0	
,, sheet and bar..	15 17 6-		—	
,, pipe	16 7 6-		—	
,, red	16 15 0-		—	
,, white	21 0 0-	23	0 0	
,, patent shot ...	17 17 6-		—	
Spanish	14 15 0-		—	
NICKEL.				
Metal, per cwt.	15 0 0-	16	0 0	
Ore, 10 per cent. per ton.	20 0 0-	25	0 0	
QUICKSILVER.				
Flasks, 75 lbs., war.	6 10 0-		—	
SPELTER.				
Silesian	17 7 6-	17	12 6	
English, Swansea	18 0 0-		—	
Best zinc	21 10 0-	22	0 0	

TIN.	£	s. d.	£	s. d.
English, ingot, f.o.b...	105 0 0-		—	
,, bars ,, ...	106 0 0-		—	
,, refined	107 0 0-		—	
Australian	99 0 0-	99	10 0	
Banca ..... nom.	— —		—	
Straits	99 0 0-	99	10 0	
COPPER.				
Tough cake and ingot.	68 0 0-	69	0 0	
Best selected	69 0 0-	71	0 0	
Sheets and sheathing.	76 0 0-	77	0 0	
Flat Bottoms	79 0 0-	80	0 0	
Wallaroo..... nom.	69 10 0-	70	0 0	
Burra, or P.C.O.....	69 0 0-	69	10 0	
Other brands	65 0 0-	66	0 0	
Chili bars, g.o.b.	63 15 0-		—	
PHOSPHOR BRONZE.				
Alloys I., II., III., and IV.	... £120	0	0	
,, VI. and VII.	135	0	0	
,, XI., Spl. bearing metal	112	0	0	
BRASS.				
Wire	7d.-		—	
Tubes	9½-		—	
Sheets	9¼-		—	
Yel. met. sheath. & sheets	6¾d.-6¼			
TIN-PLATES.*	per box.			
Charcoal, 1st quality ...	1 2 0-	1	4 0	
,, 2nd quality ...	0 19 0-	1	0 0	
Coke, 1st quality	0 18 0-	0	19 0	
,, 2nd quality	0 16 6-	0	17 0	
Black..... per ton	15 10 0-		—	
Canada, Staff. or Gla. at Liverpool	12 0 9-		—	
Black Taggers, 450 of 14 × 10	30 0 0-		—	

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—We have again to report good markets. The tone has for the most part continued strong, a very fair business has been done, and prices in not a few instances are a shade higher than they were a week ago. The temporary pause which was noticed in some branches of the trade a week or two back seems now in most instances to have been succeeded by fresh briskness, and it would appear that those buyers who availed themselves of the slight check which was made to the upward progress of prices have adopted the best course they could have done, for the appearances of the markets this week have not only indicated the great improbability of lower prices being accepted, but have also pointed very strongly to the fact that further enhanced rates may be looked for. It is worthy of note that where the improved tone is most visible is in the leading metals in our markets, so that it does not appear too much to imagine that the minor metals will sooner or later advance, at least to some extent, from sympathy, if from no other cause. It is needless here to refer to any special feature which may or may not affect any individual one of our markets, for such circumstances would be treated with in their own special report; therefore, we have only to look at those events which influence the whole trade, and first of all, perhaps, that which has been most attractive this week has been the publication of the Board of Trade Returns for last month, and these have proved satisfactory, for they show what a large business has been done for shipment; and even in the case of iron, where the production last month was on such a gigantic scale, there we find the Board of Trade Returns sufficiently good as to cause a report that the little spurt in pig-iron this week has originated therefrom.

Then as regards consumption, there are no official returns to show the amount of business that has been doing, but if reference be made to the advices from all the manufacturing centres of industry throughout the whole of the United Kingdom, it will be seen that they are one and all in the same strain, and bear the same purport, which is, that the trade is not only good, but still developing, not only brisk from orders which have heretofore been given out, but is likewise kept animated by the constant receipt of fresh inquiries. Therefore, it may reasonably be concluded that the consumptive demand, as well as that for shipment, is large. Another point, too, which should not be overlooked, and which appears likely to tend towards the maintenance of prices, is the fact that from many of the manufacturing centres it is said that many manufacturers are well booked with orders for some few months to come, hence there may not unlikely be general business in the trade, even during the early part of the winter, which is generally taken as the quietest season in the whole year for trade.

COPPER.—During the past week this market has remained very steady as regards prices, there being scarcely any change in the value of any description. Nevertheless, the tendency of the market has for the most part been firm, sellers being very reluctant to make concessions. The tone is unquestionably good, and it is worthy of note that buyers generally do not press to any great extent for reduced prices, but, on the contrary, appear quite willing to pay existing rates, thus showing they do not anticipate any particular fall in quotations, but rather look for dearer prices shortly ruling. This in the present state of the market is not only a general but also a natural conclusion to arrive at, for, notwithstanding the large business which has been transacted during the last month or so, it might not unlikely create the idea that consumers' and shippers' wants may have been satisfied, so that there will be less demand in the future; yet up to the very last statistics which have been published it has been seen that the demand has continued to exceed the supply, so that while this remains the case there is every cause for congratulation, and in consequence better prices may reasonably be looked for, hence it is easy to account for the firmness with which holders cling to their stocks. Prior to the present upward movement in prices it will be remembered there were many attempts made to enhance the value of this metal, but without any apparent success, and if there are any of the trade who believe the present rise will likewise prove fruitless it will be well for them to call to mind that the advance now—different from its immediate predecessors—has been caused almost entirely from the constant publications of reduced stocks, and it appears very evident the advance in prices has been in nowise out of proportion to what it should have been with the sensible reduction which has been effected in the total visible stocks. It has not been from speculation, nor from the circulation of satisfactory trade reports, which has made this market assume its present position; these have been only slight measures which have helped the progress of the market, but the elevated prices, compared with those ruling a short while ago, must be attributed to the good deliveries and limited supplies, and has been effected chiefly upon the merits of the market

IRON.—There has been a strong market this week for iron, and better prices have been realised for the raw material, while quotations for manufactured have been steadily upheld, but without any further advance. In this latter class of iron there is a moderate business doing, and it is satisfactory to observe that manufacturers still hold large orders, enough in many instances to keep their works well occupied for a long while to come. With India, however, not so much business is doing as would be desired, but if Indian indentors are holding off the market in the hope that by delaying their orders they will be able to effect purchases later on at more reasonable prices than now exist it would appear that they are not likely to meet with much success, for while manufacturers can secure enough orders from other sources to keep their mills in active operation it is not at all likely they will accept any reduced rates to obtain orders from any one particular market, and especially as complaints frequently exist at the delay which is often occasioned in delivering iron now on order, through the pressure of contracts which the works are said to hold. Further than this present prices are by no means dear; in fact, they must be considered very moderate, and were it not for the enormous and constantly increasing public stock in Glasgow, it would be very unlikely that buyers would be able to secure their wants at the present reasonable prices. Business is doubtless stimulated by the existence of these moderate rates, and the renewal of fresh activity in the demand for Scotch pigs this week strongly indicates that buyers expect still further improved prices, and that operators still take a sanguine view of the immediate future. The following returns from Glasgow show that the shipments last week do not compare well with those for the corresponding period of last year; nevertheless this has in no way damped the tone of the market, probably on account of the shipments in that particular week of last year being large, and not arising from any deficiency in the exports of last week. The Glasgow warrant market has this week been somewhat irregular. Opening on Monday at 49s. 8d., the price in course of the day advanced to 50s. 2d., without any extra amount of business doing, while on Tuesday the opening figure was 50s. 6d., betwixt which and 50s. 3d. the market afterwards fluctuated, closing at 50s. 4d. sellers, and buyers near. On Wednesday there was a better market, and transactions having been recorded at variable prices, the market closed finally at 50s. 10d., while yesterday 51s. was the official quotation, and to-day 52s..

The foreign and coastwise shipments last week were 11,333 tons, against 12,430 tons for the same week of last year, being a decrease of 1097 tons, and which now makes the total shipments for the whole of this year 497,426 tons, against 591,783 tons for the same week of last year, and 499,166 tons in 1879. The number of furnaces in blast continue at 105, and the stock in Messrs. Connal and Co.'s stores has been further increased by 2696 tons, now amounting to 611,259 tons, against 608,563 tons last week. The imports of Middlesborough pig-iron into Grangemouth last week were 9545 tons, against 4253 tons for the same week last year, or an increase of 5292 tons. The Middlesborough market is reported firm, and better prices have been obtained, partly owing to the improvement in the Scotch market, but more especially on account of the reduced public stocks in this district. Last week there was a further decrease in Messrs. Connall and Co.'s stock in Middlesborough of 1462 tons, making the quantity now in store 179,212 tons. Warrants are held for 41s. 9d. for No. 3; and, as usual, 1s. less for No. 4. Makers' quotation is about 42s. for No. 3, for delivery at the end of the year. The shipments last week were very good, being estimated at about 23,300 tons. There is a fair request for manufactured iron, without much change in prices. The shipbuilding trade is steady, and the price asked for ship-plates is 6*l.* 10s., and for boiler-plates 7*l.* 10s. to 7*l.* 12s. 6d., while angles and common bars continue to be quoted at 6*l.* per ton. The Wolverhampton market is said to be steady, and a fair number of orders have been offering for finished iron, although business has not, in many instances, resulted therefrom on account of buyers' limits being below the official quotations, and sellers have refused to make concessions. Common bars rule at 6*l.* 5s. and sheets at 8*l.* 10s. for singles; usual extras for doubles and trebles. Pigs have been dull of sale, owing to the heavy quantities bought a short while back, and prices have remained unaltered, although symptoms of ease have at times been visible.

On account of consumers having in a measure satisfied their present wants, business upon the Birmingham market is now reported more quiet than it was a week or two back. Prices, however, are still well sustained, but are without further advance. The various works are said to hold enough orders to keep their mills well occupied for the remainder of this year. A fair demand has existed for Indian sheets, while buyers of bars have also been placing some good orders chiefly for Italy at ruling prices. The Sheffield report is again of an encouraging nature, and shows that notwithstanding the firmness of prices buyers continue to purchase with considerable freedom. There is an extensive demand for ship-plates, as also for general railway material, and the various works which manufacture this kind of iron are said to be very actively occupied. From the Welsh districts there is no new feature to record, a fair demand existing, prices remaining steady, and briskness prevailing at the various mills. According to the most recent advices from America there is scarcely any change in the state of the American market. Scotch pigs remain very firm, and hematite and Cleveland pigs are slightly dearer, the former being 2s. higher, and the latter 4s. No. 1 Gartsherrie and Glengarnock are quoted at 82s; Coltness, 82s 6d; and Eglinton, 82s 6d. Scrap and old rails are offering at 81s 6d. Hematites are quoted at 82s 6d, and Cleveland pigs at 82s.

TIN.—There has again been a large business done in this metal, and prices, after having remained fairly steady for a short period, have once more taken a marked upward tendency. Hence transactions have been done at variable rates, and the turnover has continued large and probably far in excess of the actual stock. The high prices, notwithstanding that they are much above the average for many a year past, do not seem in any way to deter operators from making fresh contracts, and as prices advance there is apparently little or no falling off in the demand. Operators continue to buy and sell, and by the upward tendency of the market must certainly, in the majority of instances, make fair, if not large, profits upon their several transactions. These favourable results naturally encourage them to continue to effect purchases, especially as month after month statistics show a further reduction in the total visible stocks, and while this continues to be so prominent a feature in this market it would certainly seem that prices, in spite of their present high range, must still further advance. There may not unlikely be slight reactions every now and again, which is the almost inevitable consequences of any market where speculation largely exists, but the ultimate result of supplies being kept under the consumption must be a dearer range of prices. A Dutch sale is just announced for the 30th inst. at Amsterdam, when 23,300 slabs Banca will be offered.

SPELTER.—The market is steady. The demand is somewhat quieter, but the general tone is good. We quote ordinaries, 17*l.* 7s. 6d. to 17*l.* 10s.; and specials, 17*l.* 12s. 6d. to 17*l.* 17s. 6d.

LEAD.—There is not very much business doing in this metal, and prices have tended slightly in favour of buyers, but are without any very apparent alterations.

STEEL.—There is no new feature to record in the state of this market. Business continues to be done on a fairly large scale at previous rates.

TIN-PLATES.—Business continues rather limited, but prices taken, on the whole, are well sustained.

QUICKSILVER.—The importers of Spanish, after having been excluded from business for several weeks by cheap second-hand sales, on Monday reduced their price from 7*l.* to 6*l.* 10s. This fall has unfavourably affected the market, and there is little disposition to buy.

COPPER AND TIN.—Messrs. RICKARDS and BUDD (Nov. 9) writes: Copper remains very firm, and with present consumption and supply appears to be in a perfectly sound condition. Deliveries out of stocks are very large, especially in France. This latter is an important item, as proving the growing needs of that country. Stocks in consumer's hands on the Continent are believed to be very small. Tin also in large demand. Stocks are decreasing in Europe, and only slightly increasing in America. While the enquiry for English remains at its present level, necessitating the use of considerable quantities of foreign to make up the quantity required, tin is more likely to advance than recede.

The MINING SHARE MARKET has been very inactive during the week, notwithstanding a firmer tone in the metal market. The present depressed state of affairs has been brought about, in a great measure, by over speculation and the time bargains to which we referred a few weeks ago; and the facilities for borrowing money upon shares in Cornwall, which at times causes not only reckless speculation, but inflated prices, receives ample confirmation this week, when we understand at the present time it is calculated that it will take at least 35,000*l.* or 40,000*l.* to relieve the market of the surplus stock held by bankers and others for speculators in the Cornish market alone. The astonishing rise in the price of Dolcoath shares was the subject of common remark a few weeks ago. It now appears that 250 shares are thus held in pawn, at prices varying from 80*l.* to 90*l.* per share; and also, amongst others, 300 South Frances, at 15*l.*, and 500 West Frances, at 19*l.* In London no banker would advance money on mining shares, and there are no other facilities for encouraging this kind of speculation.

TIN is firmer, and has advanced during the week, but up to the time we write there is no advance in the standard for ore. The shares are very quiet. Blue Hills, 2¼ to 2⅜; Carn Brea, 28 to 29; Cook's Kitchen, 25¼ to 26¼; Dolcoath, 84 to 86; East Blue Hills, 10s. to 15s; East Pool, 42 to 43, ex div.; at the meeting the accounts showed a profit on three months' working of 7767*l.* 12s. 3d., and a credit balance of 10,232*l.* 10s. 10d., out of which a dividend of 1*l.* 3s. 6d. per share (7520*l.*) was declared. The tin sold for the quarter realised 16,168*l.* 5s. 3d. The mine is looking well. The 200, or deepest level, is worth 100*l.* per fathom, and the total points in operation are worth in the aggregate 840*l.* per fm.; great lode, 533*l.*; Flat lode, 127*l.*; and the south lode 180*l.* per fm. New Kitty, 1⅜ to 2; Polrose, ⅝ to ¾; South Condurrow, 10½ to 11; South Frances, 16½ to 17½; Tincroft, 19 to 20; West Basset, 13 to 14; West Frances, 17½ to 18; West Kitty, 8½ to 9; West Peevor, 12½ to 13; West Polbreen, 1 to 1⅛; Wheal Agar, 14 to 14½; Wheal Basset, 5 to 5½; Wheal Grenville, 12 to 12½; Wheal Jane, 25s. to 30s.

Wheal Kitty Saint Agnes, 1 to 1¼; Wheal Peevor, 12 to 13; Wheal Uny, 3½ to 3⅝; Sinclair, 1 to 1⅛; Wheal Jewell, 10s. to 15s. 6d.; Drakewalls, ½ to ¾; Kit Hill, ⅝ to ⅞; Phœnix, 3¼ to 3½; South Crofty, 9⅛ to 10; West Godolphin 1⅜ to 2; call of 2s. 6d. per share paid. Killifreth, 1⅜ to 1⅝; Goodevere, 1¼ to 1⅜; Wheal Sisters, 2 to 2½; East Lovell, 2 to 2½; at the meeting in Cornwall to-day, full particulars of which have not reached us, a call of 10s. per share was made; the debit balance was 268*l.* 11s. 1d. New Trumpet, 1 to 1⅛; the meeting here, we understand, passed off satisfactorily, and a favourable report issued.

COPPER is advancing, and a further rise anticipated, but at present there is not much doing in shares, and prices are nominal. Bedford United, 1½ to 1¾; Devon Great Consols, 7⅞ to 8; South Devon United, 1½ to 1⅝; Devon Great United, ¾ to 1¼; Gawton, ⅝ to ¾; Gunnislake (Clitters), 3 to 3¼; East Caradon, ⅜ to ⅝; Hingston Down, 1⅛ to 1⅜; Mellanear, 4½ to 5; Marke Valley, 1 to 1¼; Mona, 8½ to 9¼; Morfa Du, ⅝ to ¾; New Cook's Kitchen, 5 to 5⅛; New West Caradon, 10s. to 12s. 6d. Wheal Crebor, 2¼ to 2⅜; at the meeting, full particulars of which will be found in another column, the accounts for four months showed a profit of 8,9*l.* 16s. 6d., but a fifth month, under the four weeks' system, had to be brought into the accounts, reducing the profit by that amount, and balance of assets over liabilities to 876*l.* 1s. 5d. The copper ores sold realised 2790*l.*, and the agents hope to sell about the same quantity for the next four months at a less cost. No dividend was declared.

South Caradon, 50 to 55; West Caradon, ¾ to 1; West Crebor, ⅜ to ½; West Seton, 14 to 15; West Tolgus, 25 to 30; Parys Copper, ¾ to 1; the lode here continues worth 5 tons of good ore per fathom. Prince of Wales, 10s. to 15s.; Mona Consols, 1 to 1¼; Devon Friendship, 17s. 6d. to 22s. 6d. The adit end has improved, the agent describing the lode as "of a splendid character," producing 6 to 7 tons of arsenical mundic per fathom. No. 1 stope is worth 10½ tons, and three other stopes 3 tons per fathom each. In a few days they expect to be in the 30 level.

LEAD.—There is less doing in lead mines than in any others, and prices are quite nominal. Van, 9 to 10; the 120 west continues to open out well. The sale on Thursday, 200 tons of lead and 100 tons of blende, realised 2425*l.* Roman Gravels, 12 to 12¼; the sampling here is 150 tons. Tankerville Great Consols, 9s. to 11s.; the sale this week, 60 tons of lead, realised 9*l.* 3s. 6d. per ton from Tankerville; 10 tons, at 7*l.* 3s., from Pennerley, and 25 tons at 9*l.* 3s. 6d.; from Bog 15 tons, at 9*l.* 5s. 6d. per ton, and 35 tons of blende, at 4*l.* 4s. 6d. per ton. East Roman Gravels, 17s. 6d. to 22s. 6d.; the 97 has improved to 2½ tons of lead per fathom. The rock drill is doing good work. Great Laxey, 18 to 19. Glenroy, ⅜ to ½; the lode in the 108 north has further improved since last week. Northern Lead, 1 to 1⅛; the ore ground at Stotsfield Burn maintains its value. At Brandon Walls the water is drained 21 fathoms. South Darren, 1½ to 1⅔; the 120 east is worth about 2 tons of rich silver-lead ore per fathom, and the 110 west 1½ to 2 tons. The sale this week, 45 tons, realised 14*l.* 15s. per ton.

Crosswood, ¾ to 1¼. Frongoch, 3 to 4; the sale this week, 100 tons of blende realised 3*l.* 5s. per ton; 50 tons of second quality 3*l.* 1s. 6d., being an advance of 5s. on previous sales, Grogwinion, 1½ to 2½; Goginan, 1 to 1¼. Pandora, 15s. to 20s.; the sale this week, 25 tons of lead realised 8*l.* 16s. 6d. per ton, and 35 tons of blende, 1*l.* 15s. per ton. Great Holway, 5 to 5½; the 50 tons of blende sold at 4*l.* 3s. 6d. per ton. West Holway, 25s. to 30s.; Pennant, 4 to 5; Pen-yr-Orsedd, 1 to 1½; West Lisburne, 1 to 1½; Goddard's Lead, 1 to 1½; North D'Eresby, 1 to 1¼. Kirk Michael, 1 to 1⅛; this mine is improving, and the lode in the 20 north, worth 1½ tons of lead ore per fathom. Coed-y-Fedw, 1 to 1¼; Leadhills, 1½ to 2; North Herodsfoot, ½ to ⅝; Hornachos, 6 to 7.

FOREIGN MINES.—Birdseye Creek, 1⅜ to 1½; Brazilian Gold, 1 to 1⅛; Cape Copper, 44 to 46; Copiapo, 2⅝ to 3⅛; Don Pedro, ½ to ⅝; Eberhardt, ⅝ to ¾; Emma, 2½ to 3; Chile Gold, ⅝ to ¾; Devala Central, ½ to ⅝; Devala-Moyar, 1 to 1½; Indian Phœnix, ⅜ to 1; Indian Trevelyan, ⅜ to 1; Indian Consolidated, ⅜ to 1; Potosi, ¼ to ⅜; Santa Cruz, ⅜ to ⅝; South East Wynaad, 1⅛ to 1⅜; Tambracherry, ⅞ to 1⅛; Frontino and Bolivia, 3½ to 4; New Quebrada, 4¼ to 4⅜; Panulcillo, 5½ to 6; Richmond, 16¾ to 17; Ruby, 4½ to 4¾; South Indian, 1⅛ to 1⅛; Gold Hill, 1 to 1¼; Arendal, 2½ to 3; the lode in shaft below the 75 has improved from 3½ to 6 tons per fathom; there are several stopes worth 5 tons each and some 4 to 6 tons. English Australian Gold, 17s. 6d. to 22s. 6d.; advices received this week are favourable; the profits were 600*l.*, and the colonial balance increased to 1622*l.*, after allowing for the bar of gold (540*l.*) lately sent home. Kapanga, 8s. to 10s.; Michipicoten, 1⅛ to 1⅜; Indian Glenrock, 1⅛ to 1½; Mysore Reef, ⅜ to ⅝; Last Chance, ¾ to 1; Port Philip, 4s. to 6s.; Yuba River, par to ⅛ prem.

The Market for Mine Shares on the Stock Exchange has during the week been fairly active, except when the members have been holiday making and sight seeing; and considering the increasing prosperity in all branches of business, as evidenced by the unusually satisfactory Board of Trade Returns just issued, a period of great activity in the immediate future is confidently anticipated. The total increase in our export trade for the month of October was 2,539,021*l.*, and the total increase in the 10 months ending October was no less than 7,312,666*l.*; and what is more satisfactory is that the month's return shows a decrease to four countries only—India, Germany, Holland, and Japan—and in each of these cases, except that of Japan, there is still a good balance in our favour on the ten months. The United States, British Possessions abroad, Turkey, Russia, Brazil, and Portugal all show good increases on the month—the United States to the extent 357,581*l.*—indicating that the tide of trade has turned, and satisfactorily diminishing the decreases to the end of September. Our exports to the United States still show a deficiency of 2,443,592*l.*, but against this we have a net increase in our exports to other countries of 9,756,258*l.*, leaving a net improvement of 7,312,666*l.*, as already stated. The prospects of the metalliferous trades are also particularly cheering, and several new enterprises are on the eve of being brought forward.

The Moelfre Lead Mining Company, with a capital of 25,000*l.*, in shares of 1*l.* each, has been formed to purchase (for 8500*l.*, of which 2500*l.* is taken in cash, and the rest in fully paid shares) and develope a valuable lead mining property of the same name near Llanidloes, Montgomeryshire, held for 23 years from Jan. 1 at a royalty of one-fifteenth, and not subject to dead rent. It will be seen from the prospectus, which is published in another column, that the lodes are proved to be of immense width and strength, and in the same stratification as the celebrated and lucrative Van Mines. This view seems to be based on the concurrent testimony of all the mining engineers who have inspected it. Mr. F. T. Whitehead, F.G.S., M.E., says that the Moelfre is in exactly the same lithological formation as the Van, Brynpostig, and other lodes of the district, and that from the richness and large quantity of lead ore found in the flookan and other parts of the lodes he considers the property one of great value. Capt. Henry Francis, of Llanidloes, has never found a lode of this magnitude and character to fail if properly developed. Capt. John Rogers never in all his experience saw ground more congenial for producing mineral, and considers the property, if developed, will prove of immense value. Mr. Peter Bradburn, M.E., reports that the sett comprises and embraces several lodes in formation similar to that in which the rich deposits of ore have been discovered in the celebrated Van Mines. The mine, he adds, has been proved by cutting two levels, one of which enters the foot of the hill, and cross-cuts a lode of from 30 to 40 ft. in width; the other also entering a lode of rather large dimensions. Mr. J. A. Fraser, of Carnarvon, considers that the richness of the mine in depth may turn out equal to that of the Great Van Mine, being in the same stratification, and possessing equally good indications at surface. And Mr. James Roach, of the United Van and Glyn, says there is another lode ahead of the drivage alluded to—this is probably the lode referred to as cut in Mr. James Richards's telegram published in last week's Journal. The directors are all men of business, and also acquainted with mining matters, so that the concern ought to be, and no doubt will be, well managed.

The Guinea Coast Gold Mining Company, formed with a capital

of 125,000*l.*, in shares of 1*l.* each, to purchase for 75,000*l.* (of which 33,333*l.* is taken in deferred shares, the other shares being entitled to a 15 per cent. preferential dividend) the lease of the gold mines of Izrah, over 400 acres in extent, in Appolonia, Gold Coast Colony, West Africa. The auriferous wealth of the Gold Coast Colony has, it is remarked, long been vaguely known to general fame, but until lately no systematic attempts have been made to get access to it, so that operations will be carried on in what are believed to be almost virgin deposits. The territory of Appolonia is within the colony, and has been under direct British control since the close of the Ashantee war. By aid of the best appliances and machinery bountiful results are considered certain. The exact extent of the deposits is, it is added, of course matter of estimate and calculation. What is known, however, is that the whole of the gold producing region is stored with the precious metal, as is proved by the quantities of gold dust lying about, and which have been made available for centuries. The rude appliances of native mining only enable the toilers in search of gold to deal with what was absolutely on the surface. Whenever the resources of science are applied it is impossible to say what a harvest will be reaped. This is, it is further remarked, no mere matter of speculation, for the success of two companies that have been at work in the neighbourhood during the last 18 months has been of a satisfactory character. The mineral obtained by these companies has proved rich on assay, and the samples taken from the property to be acquired by the new company are of such a character that the directors feel justified in counting upon a profit of 6*l.* 15s. per ton, which upon a crushing of 50 tons per day would give 106,000*l.* a year, or 80 per cent. on the entire capital.

Devon Great Consols, 8 to 9; and reported to be in demand, owing no doubt to the continued and steady rise now going on in the price of copper. The next sale of copper ore is about 945 tons. Devon Great United, 1 to 1¼; good progress is being made in sinking the engine-shaft. Drake Walls, 15s. to 17s. 6d.; as will be seen by the agent's report, the streams will soon be ready to work and returns of tin made. Kit Hill Great Consols, 12s. 6d. to 17s. 6d.; the engine has been set to work, and good progress is being made with pumping out the water from the shaft. South Wheal Francis, 17 to 18; at which prices they have, it is said, been enquired for, owing to the increased sales of tin and the expectation of a good dividend at the next meeting of shareholders. Cook's Kitchen, 24 to 25; the bottom of the mine is reported to be looking well.

Mona, 9 to 10; no change is reported since the meeting. The various points of operation are steadily being pushed forward and are opening out satisfactorily. Capt. Hughes, Nov. 11, writes: All the pitches look well, and the returns of the ores for the month will exceed the estimate. Fine ore is coming in at the 70, going east at Sydney's shaft, and the 80 will probably be in the same thing shortly. There are four furnaces in full work, but our stock of ores still increases. We will start another furnace as soon as possible, and shall then have five in full swing. We have to-day entered some more old workings at Blue Stone shaft, in which ore has been left untouched by the former owners of the mine.

West Tolgus, 25 to 26; rich stones of copper ore having come in the 85 end, driving west from Richards' shaft, shares had a 10*l.* rise. A correspondent writes—"A course of ore in this and the 105 would soon put this mine again in the Dividend List. There are only 512 shares, an important consideration to investors."

North Busy, ⅝ to ¾; the discovery of tin recently made has further improved in value since the meeting. Now reported worth 30*l.* per fathom. This has considerably enhanced the value of the mine, the future prospects of which are deemed very good indeed.

West Godolphin, 1¾ to 2; at the meeting on Thursday the accounts made up to Oct. 26, showed cash in hand, 389*l.*, and balance of liabilities over assets, 115*l.* A call of 2s. 6d. per share was made to provide for the next three months' costs. The report of the mine is considered satisfactory. The new stamps are finished, and it is expected that the frames and buddles in connection with the same will be ready in about six weeks or two months, when profitable returns of tin will be made.

Richmond, 16¾ to 17; the usual telegram from the mines at Eureka, Nevada, states that the week's run was $43,000, from 880 tons of ore. During the week the refinery produced doré bars to the value of $40,000. Total depth in ore on incline 50 ft, now flattening out northwards. The manager (Oct. 19) reports that the 200 west has been extended 12 ft. in favourable ground. A winze has been started from the bottom of the 200 south from the west drift in ledge matter, low grade ore, with bunches of galena, and looks very favourable to open out to pay ore shortly. Last week a drift was started east from the 600 north, from the No. 14 chute, and after drifting 30 ft. a small cave was encountered showing some good pieces of galena and carbonate ore on the sides. After clearing out the debris from the bottom of the cave we found a floor of good carbonate ore. Not sufficient work has been done to ascertain the size, but at present it shows a breast of 8 ft. of good ore, and judging from the appearance it is nearly certain to open out to a large ore body. This is undoubtedly the continuation in depth of the large ore chambers found above this level, and the fact of it making below the 600 is of great importance, and cannot be too highly appreciated, as no ore of any value has been found below the 600. The 700 east has been drifted 10 ft. without any change. The 1200 cross-cut has been extended 22 ft., a total distance from the shaft of 114 ft.; the end is still in quartzite.

Ruby and Dunderberg, 4⅜ to 4½; the telegram this week shows a considerable improvement in the quality of the ore smelted, the assay value per ton being nearly $54. This increased value it is understood has been brought about partly by the improved character of the shipments from the Bullwhacker Mine. The weekly report shows that the No. 7 ore body is developing satisfactorily, and that the No. 2 ore body has been met with again between the 600 and 700 ft. levels. The shipments from the Bullwhacker continue on a fair scale.

Eureka (Nevada), 1⅝ to 1⅞; this week's report advises good progress in the various drifts in the Bald Eagle. A fissure of low-grade ore had been passed through in the 150 ft. west drift, which is being followed both north and south, and it is expected this may lead to a good ore body. The 150 ft. north drift has been advanced 24 feet during the week; this only requires about 10 to 15 ft. further driving to connect it with the bottom of the old ore chamber.

Michipicoten, 1⅛ to 1⅜; a telegram received during the week brings news from the island to Oct. 22; at that date all matters were making satisfactory progress.

Frontino and Bolivia, 3¾ to 4¼; and have been enquired for owing, it is said, to the satisfactory advices last received. Mysore Reefs are reported to be in demand at ⅜ to ½; the latest advices received from the property are considered highly encouraging. Kapanga Gold shares, ⅜ to ½; some important information is shortly expected from the manager. Yuba Gold-washing shares have been done at par to ⅛ prem. and are likely to have a good advance, as large monthly profits are shortly expected.

Missouri, 10 to 10½; advices received this week state that the St. Clair shaft is nearly down to the 410 ft. The 400 level will be started next week. The lode in the 315 north level is opening out somewhat and the ground gives evidence of getting stronger. At old engine shaft in the 270 level the lode is 2 ft. to 2½ ft. wide, with every possible indication of cutting ore. The dressing machinery has been started in the low grade ore.

The German Petroleum Companies, recently referred to as being ready for launching, appear to have had a check; and a correspondent writes that the suggested change of Eickenrode to Oelbrunnen; of Volkse to Oelschachten, and so on, is a little premature, as no technical reports have been received, nor can be obtained, in this country concerning any of the properties referred to, so that there is at present absolutely no evidence of the existence of any oil whatever in either of the concessions now being offered in London. If a pessimist view is being taken by those who could aid in taking working capital into the district, and thus ultimately benefiting the concessionaires, the Germans have themselves to thank. In the face of the fact that the Sehnde Petroleum Company was not floated, and that the English promoters have honourably returned the whole of the deposits paid, the concessionaires of the Brunswick properties are pressing for the immediate payment of so large a proportion of the purchase money in cash, that suspicion is naturally aroused as to the intrinsic worth of the properties themselves. Reports say that between Eickenrode and Oelheim, and nearer the former place, oil has during the week been struck at a short distance from surface. The rumour is, fortunately, unsupported, and has no doubt been given currency to in the hope of hurrying on the bargain, but the effect has been the reverse. Nothing being known of the dip of the strata, the only inference to be drawn from the statement is that the oil-bearing beds may crop up and cut out before Eickenrode is reached, rendering the concession quite valueless. It is cordially to be hoped that the Teutonic overreaching which sacrificed both vendors and promoters in the Sehnde will not be repeated, or no English capital will be obtained for the most promising German petroleum lands that can be offered. It is not improbable, however, that definite information will shortly be forthcoming, as it is understood that those who are negociating the purchase in this company have undertaken (upon a provisional engagement being entered into for the concessionaires to allow the necessary time, and to make their payment to some extent dependent upon success) to have the properties examined at their own cost by an expert at once. Purchasers seldom offer such liberal terms, and it seems pretty evident that unless the vendors accept them no more will for some time be heard of German petroleum projects in this market. It is reported that at the oil spring found last week at Oelheim 230 barrels of petroleum were pumped during a run of 20 hours. There is a good field for enterprise, but the Germans seem doing their best to render it sterile,

In connection with South African diamond mining a Kimberley correspondent, from whom a communication will be found in another column, suggests that attention ought to be directed in the *Mining Journal* to the extensive manner in which the Barnato and British companies' dividends are advertised, and recommends British capitalists to await the next quarter's balance-sheet. He adds:—"It is a fact that the Kimberley Mine taken in the aggregate is a failure, notwithstanding the tone of the local papers, which are held by large claim holders." The British owns a few square yards over a quarter of an acre (12¾ claims), and the price paid for it is 106,300*l.*

The secretary of the Cherambadi (Wynaad District) Gold Mining Company notifies the arrival in India of Mr. Phillips, the director sent out to report upon the Pandyland Estate, purchased by this company.

The Kohinoor Company has obtained working possession of the Donaldson Mine, and Mr. Rickard, the company's consulting engineer, in a telegram, dated Nov. 10, states, "Prospect Donaldson most gratifying."

Notice is given that the capital of the Deutsche Bank, Berlin, is to be increased to 60,000,000 marks (3,000,000*l.*) by an issue of 25,000 new shares of the nominal value of 600 marks (30*l.*) Three old shares will entitle to one share in the new capital, which will be issued at 30 per cent. premium.

We are informed that Mr. George R. Walker, of Aldridge Villas, Bayswater, has joined the board of directors of the Taunus Silver-Lead and Copper Mining Company (Limited).

In Lead Mine shares there is still comparatively little doing, although the prospects of the lead trade, to judge from the better prices obtained for lead ore sold, are considered to be brightening. Great Laxey, 17½ to 18½ ex div., and a good demand for the shares is reported. With reference to the dispute at the board noticed in last week's *Mining Journal*, the London director writes that he is not the owner of the newspaper referred to, nor is he in any way, directly or indirectly, connected with it, neither does he desire, nor, indeed, has he ever sought, to have any undue credit above his fellow-directors for anything which may have been carried out for the welfare of the company. It is certainly to be hoped that, after such a disclaimer as this, no more will be heard of what a contemporary this week properly designated "A storm in a teacup." The matters in question cannot possibly have done any injury to the company, and, so far as the readers of the Journal and the general public are concerned, the subject is quite uninteresting. It is an acknowledged fact that one and all of the present directors have done their best for the interests of the company for several years past, and if their too appreciative friends will leave them alone, all will admit that there has nothing yet happened to prevent a continuance of each and all of their best endeavours to make this company possibly even more prosperous than heretofore.

Van, 9 to 10; the usual monthly report states that the 120 west driving in the bastard by the side of the lode is worth 2 tons of lead ore per cubic fathom. The sale on Thursday of 200 tons of lead and 100 tons of blende realised 2425*l.*

Roman Gravels, 12 to 13; it appears that the mines continue to open out fine courses of lead ore, and they have sampled this week 150 tons of lead ore for sale next week. Tankerville Great Consols, 10s. to 12s. 6d.; the report this week shows the satisfactory progress now being made at the three properties.

Bwlch, 3 to 3¼; Mr. C. Marvin writes that a strong lode has been struck in the rise in back of the 12 under adit, south lode, containing rich lead ore, blende, peacock and yellow copper ore, with friable quartz. It is the opinion of the agent that this is its commencement of the run of lead ore he has so often alluded to, and is considered very important, in view of the large extent of ground which can be cheaply laid open.

Frongoch, 3 to 4; this mine has sold this week 100 tons of blende at 3*l.* 5s. 6d. and 50 tons of second quality at 3*l.* 1s. 6d. per ton, being an advance of 5s. upon previous sale.

The Dingley Dell Estates and Gold Mining Company (Limited) have received a report from Capt. Williams, dated Ootacamund, Oct. 14:—We have been working No. 1 reef with all activity during the past week, and have got out a considerable amount of quartz; have also gone down on it 4 ft. The reef is of much the same character as at surface, and appears wide enough to go any depth. Having exposed this reef sufficiently for the present we are thinking to put the men employed here to open out No. 3 reef; there is an outcrop here about 2 ft. wide. I hope to be able to inform you better in my next. The excavating for engines and pulverisers is completed, and we are now proceeding with a level for the lodgment of quartz and stonebreaker. I am pleased to say that most of the materials have arrived from Beypore without a breakage. Everything is now on the spot with the exception of the two engines and stonebreaker. The work is progressing very satisfactorily.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been—British, 34⅜; Bombay, 5¾ to 5 13/16; ditto, new, 4¾; Bahia, 18½; Commercial, 180 to 184; ditto, 4½ debenture, 109; Continental Union, 23⅝ to 23¾; ditto, new, 16¾ to 16¾; Gaslight, A, 169½ to 172¾; ditto, D, 10 per cent., 217; ditto, E, 1215; ditto, H, 7 per cent. 129½ to 130½; Imperial Continental, 194 to 195½; Monte Video, 14⅜ to 14½; Oriental new, 6; Para, 6⅞; Rio de Janeiro, 25¾ to 26; South Metropolitan, A, 210 to 212; ditto, B, 177 to 178½. Gas stocks flat. For closing prices see list on the last page of Journal.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance British and Foreign, 37¾; Commercial Union, 24¾ to 25; City of London Fire, 1¾ to 1 13/16; Employers' Liability, 2 7/16; Fire Insurance, 4⅝ to 4 13/16; Guardian, 74 to 75; Indemnity, 111½ to 112½; London and Lancashire, 1½; London, 65¼ to 65½; London and Staffordshire, ⅝ to 11/16; Marine, 25⅛; Merchants Marine, 1⅝; North British and Mercantile, 62⅞; Railway Passengers, 7½; Rock, 8¾; Ocean, 8¾ to 9 1/16. Insurances steady, but little doing. For closing prices see list on the last page of Journal.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. ABBOTT, of Tokenhouse-yard, are given in tabular form in the last page of Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, 5, Birchin-lane, writes:—*Opening:* Egyptian Unified maintain yesterday's rise of ½, and are being rather largely dealt in at 72½. Turks have a dull tendency, and look as if they would run down further. At the present the price is 13⅞ to 14. Great Western, 134¼ to 134½; North British, 93½ to 93⅝; Trunk, ordinary, 19¾; Third Preference, 39 to 39¼. Mining shares are rather more active. A good demand exists for Parys Corporation, at ¾ to ⅞, the present position being more than ever promising. Eberhardt, 11/16 to ¾; Van, 8¼ to 9; Gawton, ⅝ to ⅞; Ruby, 4½ to 4¾; Richmond, 16⅝ to 16⅞; Polrose, ⅝ to ¾; New West Caradon, 10s. to 12s. 6d.—*Closing:* There has been a considerable fall in Turkish Fives, the price now being no better than 13¾ to 13⅜; the 1869 issue has dropped ⅝, and that of 1871, ¾. Unified have receded to 71¾; Lombards, 12¼ to 12⅜; Spanish, 27½ to 27⅝; Ottoman Bank, 18¼ to 18½. There is a fall of ⅝ in Sheffield A. A good deal of the weakness doubtless arises from to-morrow being the last day of the present account. Port Phillip, 4s. to 5s.; Emma, 2¼ to 2½; Don Pedro, 5/16 to 7/16.

ARENDAL.—The report from the managers, dated Nov. 3, is favourable. The sinking of the shaft below the 75 fm. level is being pushed on so as to reach the 100 as soon as possible. The lode in the bottom of the shaft is worth 3½ tons of copper per fathom, and with the appearance of improving. The 50 and 60 fm. levels are also better, and a great improvement expected soon in them. The winzes and stopes are looking well, two of the latter in the 75 being worth each 5 tons per fathom, and the stopes in the 60 are worth 4 to 6 tons. The lode at Boilstad is worth 2 tons. The Saml. Holland was expected daily to load with 260 to 270 tons of ore for England. The managers state that the quality will be very much better than for some time past. By a telegram since received the lode in the shaft above mentioned has improved to 6 tons per fathom.

BRATSBERG.—The ore raised by the late lessee from January to October this year has been about 800 tons, worth nearly 10,000*l.*, with an average of only 20 miners. The mines continue to improve, and with the rock-drills and additional powerful machinery about to be erected the returns and profits will be very largely increased. The ground opened is valued at above 250,000*l.*, which is being daily added to. The new company have now possession of the property, and have already made a profit as from April last. The different mines have each a great extent of ground on the various rich lodes, and are capable of yielding immense returns of copper ore of high quality—say, 20 to 30 per cent., and some even higher. Last year the Cape Copper Company made a profit of 110,000*l.*, with copper at a lower price than it is now. Their capital is 200,000*l.*, and their shares, 7*l.* paid, are worth 45*l.* each. The whole capital of the Bratsberg Company is only 60,000*l.*, and there is no reason why, in a more favourable situation, it should not pay at least as well, besides disposing of several of its mines to great advantage.

ENGLISH-AUSTRALIAN GOLD.—The advices received this week are exceedingly favourable. The accounts show an additional profit of 600*l.*, the receipts including the sale of three months' pyrites, and the cleaning of the amalgamating plates. The balance in the colony was increased to 1622*l.*, after allowing for a bar of gold, worth about 540*l.*, sent to the directors in London a short time ago, The financial agent states that he will send home the gold obtained from the next clean up in the following month, and he hopes and expects it will be larger than the last one.

CAPPER PASS AND SON, BRISTOL,
ARE BUYERS OF
LEAD ASHES SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c and DROSS or ORES containing COPPER, LEAD, AND ANTIMONY.

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HANDLES ON PURCHASE OR SALE
MANGANESE, ARSENIC, FLUOR-SPAR, WOLFRAM, BLENDE, CALA MINE, CARBONATE and SULPHATE OF BARYTES, ANTIMONY ORE, CHROME ORE, MAGNESITE, EMERY STONE, PUMICE STONE OCHRES AND UMBERS, CHINA CLAY, LEAD ORE FOR POTTERS, TALC, PHOSPHATE OF LIME, FULLER'S EARTH, &c. Also, ORES CONTAINING LEAD, ZINC, AND SILVER, IN COMBINATION.

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Assays or Complete Analyses made of Copper, Silver, Lead, Zinc, Tin, and other Ores. ASSAYING TAUGHT.
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Personal Examinations, Plans, and Reports of Mining, Nitrate, Railway, and other properties on the West Coast of South America.
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ABBOTT AND CO.,
SWORN BROKERS,
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OPPOSITE THE BANK.

WHEAL GEORGE MINE.
IMPORTANT DISCOVERY OF LEAD.
Present price, £2¼ to £3.
SOUTH WHEAL CREBOR SHARES.
The new engine is now delivered.
We are buyers at 15s.—sellers at 20s.

DALSTON AND CO.,
29, THREADNEEDLE STREET, LONDON, E.C.,
Have Agents throughout the United Kingdom and all parts of the World.
Intelligence obtained on Foreign Loans, Railways, Public Works, Gold, Tin, Copper Mines, &c.
HOME MINING INTELLIGENCE SUPPLIED FREE.
RISE IN PRICES.—TIN HILL shares should be bought at once for a great rise in value.

SAMUEL JAMES, STOCK AND SHARE BROKER
AND MINING SHARE DEALER, 14, ANGEL COURT, LONDON, E.C.
Member of the Redruth Mining Exchange, and for the past eighteen years connected with mines and mining, begs to call attention to the following:—
Correspondents of Capt. A. T. James, late of Redruth, who is now in India, will oblige by communicating with his son at the above address on mining matters.
Notwithstanding the remarks on Cornish mining, which recently appeared in the Times, to the effect that the glory had departed, and that investment in the mines of Cornwall was of all speculations the most speculative I have authority for stating the following:—
"In November 1878," a writer states, "I bought the following shares"—

	Purchasing price per share.	Cost.	Now selling at per share.	Market Value.
50 East Pool	£ 8 10 0 ...	£425 0 0	£42 0 0	£210
20 Dolcoath	28 0 0 ...	408 0 0	85 0 0	1700
40 West Frances	2 10 0 ...	100 0 0	18 0 0	720
100 Cook's Kitchen	0 5 0 ...	25 0 0	25 10 0	2550
50 Wheal Agar	4 0 0 ...	200 0 0	14 0 0	700
30 South Frances	5 5 0 ...	157 0 0	17 0 0	510
20 So. Condurrow	10 0 0 ...	200 0 0	10 10 0	210
50 West Basset	2 6 0 ...	100 0 0	13 10 0	675
		1615		9165

The mines of Cornwall were never in a better position for being worked so cheaply or economically as at present, vide the statements of accounts issued by Dolcoath, East Pool, Carn Brea, and other mines.
I would call particular attention to low priced progressive mines.
The tin market never looked more healthy for a rise than at present. Money cheap. Stock low. Copper and iron are both on the rise.
SAMUEL JAMES, Stock and Sharedealer, 14, Angel-Court, London, E.C.

JOSEPH TOMS, STOCK AND SHARE DEALER,
No. 88, BISHOPSGATE STREET WITHIN, E.C., has FOR SALE—

25 Devon Friendship.	25 Langford.	20 Birdseye Creek, 33s. 9
50 Royalton (offer wtd.)	40 Tin Hill, 10s. 9d.	25 West Holway.
100 Isabelle.	10 Akankoo.	10 Minera.
100 East Blue Hills, 10s 3	20 Pontgibaud.	100 West Godolphin.

Special business can be transacted in the shares against which prices are not affixed. J. T. solicits offers.

TO INVESTORS.
FOR SALE, AT NET PRICES:—

40 W. Holway, 20s.	10 Tresavean. offer wd.	35 Altami Coll., off. wd.
5 Bodidris, 10s. 6d.	40 Tresavean, 7s. 6d. pd., 5s each.	100 Devonport and Tiverton Brewery, off. wd.
5 Wh. Jewell, 12s. 6d.		
25 Tin Hills, 20s.	90 Chapel Coll., offer wd.	70 W. of England Peat, offer wd.
20 W. Polgooth, off. wd.	100 Cambrian, offer wd.	
45 Mounts Bay, off. wd.	100 Bodidris, offer wd.	

WANTED TO BUY.—1000 New Penrose shares. State price.
SPECIALLY RECOMMENDED.—Royalton and Carpella Consols.
THOMPSON AND SONS, PLYMOUTH.

FOR SALE:—

20 Crebor, £2⅞.	50 E. Blue Hills, 11s.	50 Perran Wheal Alfred, 5s.
25 Gunnislake (Clitters), £3½.	5 Great Laxey, £19,	
	5 Great Holway, £5½.	10 Wheal Fortune, £2.
100 Bwlch United, £1¾.	15 Wheal Coates United, £1 2s. 6d.	10 West Kitty, £9½.
100 West Lisburne, 18s.	50 Senteln, 10s.	25 West Jewell, 10s.

BUYER.—50 Bedford United, £1½; 100 Gawton, 12s. 6d.
Address, H. WILKINS, 1, Tamworth Villas, Tottenham.

CARTER AND CO., STOCK AND SHARE DEALERS,
8, UNION COURT, OLD BROAD STREET, LONDON,
Know of two or three Mines well situated and well managed, having abundance of mineral, which they can strongly recommend to intending investors for a substantial rise, and for good dividends.
Those desirous of making a good investment will do well to write to CARTER and Co. for particulars.

MR. CLARE, AND THE ADMIRALTY.—
Mr. CLARE desires to publish the history of this case, affording valuable knowledge on the Science of Metal Ship Construction from the first sea-going vessel in conjunction with "Clare v. the Queen," so that data may be furnished for the rising generation. Mr. CLARE, on national grounds, APPEALS FOR MONETARY HELP to enable him to do so.
Address, JOHN CLARE, 1, West Bank Road, Edge-lane, Liverpool.

Notices to Correspondents.

** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

GUINEA COAST GOLD MINING COMPANY.—"D." (Walbrook).—The directors are —Colonel Charles Wynne, Capt. R. F. Burton, and Messrs. H. W. Maynard, D. S. Peddie, J. W. Johns, and Brinsley Nixon. In the list of subscribers to the memorandum W. Goovard should read W. Goddard, and G. Rogers should be G. Rodgers.

FIRE-CLAY.—"A Constant Reader" (Redruth) asks "whether fire-clay would be considered a mineral in the strictest sense of the term?" The reply would depend entirely upon the purpose for which the question is asked. Scientifically it is not a mineral, because although it is always substantially a silicate of alumina it has no definite composition, the relative proportions of the silica and alumina varying widely in different samples of fire-clay, those richest in silica are usually the best. Legally fire-clay is a mineral, that is to say a lord of the soil not enjoying a right in the minerals would not have the right to work and sell the fire-clay, any more than he would to work and sell lead ore that might be found on the estate.

MAPS.—"E. B." (Bishopsgate).—There has been nothing of the kind since the date named. For reference as to locality the Ordnance maps which may be obtained of Mr. James Wyld, of Charing Cross. For particular properties the township maps are the most reliable. These the Town Surveyor will usually permit a clerk to send a tracing of upon payment for the clerk's time.

GREAT WHEAL POLGOOTH.—"D. S." (Ilfracombe).—The name and address of the Official Liquidator is Mr. J. Waddell, 1, Queen Victoria-street, E.C.

Received.—"Shareholder" (Mona)—"Constant Reader" (Aberystwith)—"E. M." —"Stannum"—"A Mathematician" (New York): We cannot devote space for the article on Dr. Soetbeer's pamphlet on the World's Production of Gold and Silver.—"M. M."—"F. E. W."—"J. J. L."—"E. N. P."—"E. B."—"J. P. C."—"A. R."—"W. H. W."—"W. A." (Glasgow)—"Constant Reader" (Upper Temora, in New South Wales)—"N. Y."—"Iron Ore" (Marbella) should be pleased with the course he has adopted: he has apparently, according to his ideas, acted with wisdom. When he has any matters of importance to communicate we shall be glad to hear from him.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, NOVEMBER 12, 1881.

THE UNITED STATES AND THE IRON TRADE.

It cannot be said that there is any slackening at present in the prodigious activity in business affairs in the United States, and especially in the construction of new American lines and extensions of previously existing railroad systems. Many railroad companies of the United States do not publish their traffic returns in the systematic fashion adopted in this country; nevertheless, 56 American railroad companies returned their earnings for September, and the aggregate amount acquired exhibits an increase as compared with September, 1880, of no less than $3,555,328. At this rate, American railroad traffic would appear to be increasing at the rate of somewhere about £8,500,000 sterling per annum. This astonishing result is partly due to the remarkable activity which now pervades every branch of American commerce and industry, but it is also largely attributable to the fact that the 56 companies making returns had between them 5524 miles of line more at work in September this year than were in operation in September, 1880. The rapidity with which the United States are being opened out—for, after all, the Great American Republic is still only half a wilderness—may be inferred from the single fact that the Union is now drawing immigrants from the Old World at the astonishing rate of 700,000 persons per annum. The increase in the population of the United States, by the natural excess of births over deaths, is nearly as large again, so that we are not at all exaggerating matters when we state that population is now growing in the Great Republic at the rate of 1,250,000 per annum. As the vast tide of human life reflected by such figures as these rolls westward with the help of new railways, it necessarily creates traffic and business over lines which appear, when first constructed, to run almost through solitudes. As an illustration of this, we may cite a report just made by Mr. OAKES, Vice-President of the Northern Pacific Railroad Company, upon the prospects of that undertaking. Mr. OAKES passed through portions of Washington Territory, Oregon, and Montana; and he pronounced them all well adapted for the support of a large population. At present these vast territories are, to a great extent, uncultivated solitudes. Mr. OAKES is of opinion that as soon as the Northern Pacific Railroad is completed through them, and as soon as sundry feeders have been thrown out from the main line, population will accumulate with extraordinary rapidity. So convinced is Mr. OAKES of this that while he estimates the traffic of the Northern Pacific Railroad—with (say) 1500 miles of its main line in operation —in 1881-2 at $6,000,000, he anticipates that in 1882-3, with its whole line in operation, the revenue of the Northern Pacific Railroad Company will go at a bound to $14,000,000. Such estimates as these may, perhaps, be a little too sanguine, and they must certainly undergo the salutary ordeal of experience. Still there can be no doubt that a geat future is in store for the Northern Pacific Railroad Company, and for the vast districts through which it will run. It is also an equally well assured fact that the experience of the Northern Pacific will be repeated, as it is indeed being repeated, by various other Western American railroads. The great lines—which have been at work for some years in the older settled portions of the United States—have also benefited of late from the great progress and prosperity of almost every branch of American industry. The growth of American railroad traffic during the last 12 months has, indeed, been somewhat bewildering; and the progress which railroad earnings have made has naturally tempted American railroad men to develope and improve their system, with unprecedented energy. Hence there has arisen so great a demand for steel rails and other railway *materiel* that, notwithstanding all the efforts made by American rolling-mills and works, they have scarcely been able to respond to the calls made upon their productive resources; and, in spite of the formidable duties imposed upon foreign rails entering American ports, a tolerably ready market has been found for them in the South-Western American States. Whether the existing activity in the American iron trade will continue much longer we will not undertake to say, but the end is clearly not yet.

THE EXTRACTION OF SOLID AMMONIA FROM COAL GAS.

A brief notice which appeared in the Journal a few weeks ago with respect to the discovery by Professor WANKLYN of a means of extracting ammonia in a solid state from gas water appears to have excited more than ordinary interest, not only amongst shareholders in gas companies but amongst our practical chemists and others. We have also been informed that a gentleman in the West Riding of Yorkshire has effected the same object; but we are unable to say by what process in either instance discoveries of so much commercial importance have been accomplished. There are so many purposes for which ammonia can be used, and indeed is used at the present time, that the getting of it in a solid state must result in greatly enhancing the value of what was formerly considered as the waste product of our gasworks, and causing a very large demand for it. In applied chemistry in connection with the products of gas and oils we are considerably behind Germany. Paraffin oils, both clear and dark, are used throughout Germany and in Austria for lubricating substances, and for the distillation of lighting gas, having an illuminating power four times greater than that made from coal, whilst the works required to produce gas from paraffin oil are far less costly than gas works for the distillation of coal. Among the pigments that are extracted from gas tar, analine, and artificial alizarene colours are those which present the greatest interest from a commercial standpoint, and the preparation of benzolene and the analine colours. Although first found in England in 1856 Germany soon entered into the competition, and making a good article at a low price soon monopolised the greater part of the trade, and has maintained that position. The discovery in 1856 by GRAEBE and LIEBERMANN that the colouring matter of madder could be obtained from coal tar has led to the establishment of about a dozen works in Germany for the production of the alzarine, which is extracted from the tar, and exported all over Europe and America. Anthracine, the raw material extracted in the first instance, exists to an extent of 0·5 per cent. in tar, and alzarine has caused a marked decrease in the cultivation of madder, and as the price of it is reduced its use must necessarily increase, and the importation of dyewoods from the East would be greatly diminished. The history of gas products indeed is almost a romance, so numerous are the wonders of their transformations. From the black nauseous tar is obtained the sweetest of perfumes, and the lovely dyes which adorn the dresses of our ladies, tinting them with hues bright as the rainbow itself. The ammonia of the gas water is used for numerous pur poses. But other and even more valuable products are likely to be obtained from the gas water and tar, for it was whilst Mr. PERKINS was engaged in trying to produce quinine from them that he made his great discovery of mauveine. Carbolic acid is also produced from the distillation of coal. The vapour of carbolic acid in the atmosphere is said to exert a specially selective power in all minute organisms possessing life, and if the infectious matter of cholera is possessed of organic vitality, which it may be said is almost universally admitted, it will be destroyed beyond the possibility of revival when brought into contact with this vapour. From the coal is also obtained sulphurous acid (sulphuric dioxide), the chief use of which is the bleaching of straw, woollen, silk, and other fabrics that would be injured by the use of chlorine. Another result of the distillation of coal, in which one of the principal products is nitrogen, is what is known as prussic acid, first discovered by SCHEELE in 1782, obtaining it from ferrocyanide of potassium, from which it is now principally manufactured. There is every reason for believing that as yet we are acquanted with comparatively few of the products which the distillation of coal is capable of producing, and that valuable as have been the wonderful compounds which the chemist has extracted from it there are others that are likely to be evolved from it as interesting and valuable as any of those we have noticed. Gas companies have, therefore, a good future before them, even should the electric light entirely supersede that made from coal for the illuminating of our streets, works, and dwellings. Even were the gas rendered valuless there would still be the water, tar, and coke from which a good profit would be derived. Some idea of the value of these products may be gathered from the analyses of Mr. TOOTIL, the well-known gas chemist of Manchester. Of the gas water it may be said that its commercial value depends upon its specific gravity, which varies a good deal according to the quality of the coal. The tar is in good demand, and there are markets for any quantity of ammonia that can be produced for fertilising and other purposes. Cannel coal it appears produces more ammoniacal water and tar than the ordinary bituminous coal, but the coke left is of a very inferior quality, and in some instances, such as the Boghead Scotch, is valueless. The coke made from ordinary coal, however, is as a rule of good quality. In illustration of what we have stated we present the figures showing the qualities of the gas water and gas tar, with their specific gravities as found in a ton of different descriptions of coal, as follows:—

LANCASHIRE, &c.: —	Gas water. gals.	Degrees specific grav.	Tar. gals.	Degrees speci. gra.
Wigan Coal and Iron Company	18	4⅜	12	32
Cannel	16	4½	19	28½
Bridgewater Cannel	17	4½	10	30½
Gidlow's Cannel	8	6½	11	37½
Brancker's Cannel	17	3½	15	17½
Wood and Sons	22	1½	11	25
Crippin's blend	26	2½	11	28½
Claviger coal	20	2½	10	31½
Bennett's Little Hutton	24	6½	17	30½
Inch Hall gas coal	21	3½	9	32
Rosebridge Arley coal	16	2¼	12	38½
Evan and Co.'s blend	15	4	15	28
Dukinfield Cannel				
YORKSHIRE:—	18	2¼	9	33
Bower's Hunslet Cannel	10	2½	21	31
West Yorkshire Cannel	17	5½	15	25½
Morley Main Cannel	26	3½	7	34
Denaby Main coal	24	3	13	37
Newton and Co., Silkstones	13	3½	10	36½
Old Silkstone coal	22	6	11	29½
Silkstone and Dodworth coal				
DERBYSHIRE:—	17	2¾	16	37
Sheepbridge coal	22	5	12	26
Clay Cross Cannel	31	4½	14	31½
Swanwick Cannel	23	4	14	33
Eckington Silkstone				
NORTH WALES:—	12	2	15	32½
Coed Talon Curley Cannel	17	3	21	24
Leeswood Cannel	18	2¾	15	28½
Bronwhlfa Cannel				
SCOTLAND:—	6	3	27	23
Boghead Cannel	7	5	21	31½
Dyke Head Cannel				

The specific gravity of the water and tar were determined by TWADDLE'S hydrometer at a temperature of 60° Fahr., and the values may nominally be taken at 1d. per gallon each for each degree of specific gravity. In addition, as before stated, to the values of the gas water and tar there is the coke to be reckoned, and that is an important item. The coke is first drawn red-hot from the retorts, and slacked out with water, allowed to drain for 12 hours, and then re-weighed, being then considered ready for sale. The quantity of coke produced from 1 ton of coal was as follows:—

	Slacked for sale.		
Wigan Coal Company	17 cts.	1 qr.	24 lbs
Bridgewater Cannel	15	0	18
Gidlow's Cannel	14	0	6
Brancker's Cannel	15	0	8
Bower's Yorkshire Cannel	16	1	5
West Yorkshire Company Cannel	16	1	0
Morley Main coal	16	3	10
Newton and Co.'s	18	0	24
Old Silkstone	19	3	0
Manver's Main	17	1	3
Sheepbridge, Derbyshire, coal	20	1	0
Clay Cross coal	17	1	22
Eckington Silkstone	19	0	0
Coed Talon Cannel, North Wales	15	2	0
Leeswood Cannel, North Wales	17	2	0
Bronwhlfa Cannel, North Wales	17	0	26

The average price of the coal used at gasworks will average from 7s. to 10s. per ton at most; so that if we take the coke at from 7s. 6d. to 10s. 0d. per ton, it is evident that the products from the distillation of coal, independent of the gas, will leave a good profit to the gas companies, who have, therefore, not so much to fear from the success of the Electric light as has been generally supposed.

COPPER.—Subjoined is an analysis of the Board of Trade Returns for October, so far as they relate to imports of copper, the various descriptions of copper in the Returns being reduced to a common denominator, and a comparison made with the corresponding figures in 1880:—

	1881.	1880.
Copper—In pyrites	914	1208
„ In ore	1164	1420
„ In regulus	526	168
„ In precipitate	1496	951
	4100	3747
Foreign raw copper	2561	1535
Tons	6661	5282
Value of above	£404,631	£324,188

IMPORTS, JANUARY 1 TO OCTOBER 21.

	1881.	1880.
Copper of all descriptions (tons)	71,088	78,884
Value of same	£4,262,982	£4,558,285

THE HYDRAULIC SYSTEM OF DRAINING MINES.

The system of draining mines applied at Chollar, Norcross, and Savage, on the Comstock lode, has attracted great attention among mining men, as so much depended on its proper working. Some portions of the castings were not sufficiently heavy when the system was first tried, and several breaks and delays occurred. These accidents caused many to believe that the system was a failure, but they were due to defects in minor details, not in the general plan. The pumps have now been some months at work successfully, and their workings have set at rest all doubts as to the success of the hydraulic system. The machinery, which is admirably described and illustrated in the Mining and Scientific Press of San Francisco, was designed and built in that city at the Risdon Ironworks, the superintendent of which is Mr. Joseph Moore, the brother of Mr. Ralph Moore, Her Majesty's Inspector of Mines for East Scotland. The doubt which was at one time expressed as to the scientific accuracy of the principle has, it appears, been entirely removed by the details given in the graduating thesis offered by Mr. R. S. Moore, the son of the superintendent, upon his graduation a few months since at the University of California. Choosing for his subject "The Hydraulic System of Draining Mines," he not only described the system, but made the mathematical calculations necessary in its arrangement, and carefully considered the most essential points arising during its operation. The thesis is referred to as a most scholarly production, far above the ordinary papers read on such occasions. The subject itself was an unusual one, and it was treated in a masterly manner. It may be stated here, by the way, that young Mr. Moore is now hard at work at his trade at the works, and with his practical experience and scientific knowledge will, no doubt, in time achieve a reputation for skill in mechanics equal to that his father now enjoys.

To those who have watched the progress made within the past few years in developing and prospecting the deep quartz mines of the Pacific Coast, this hydraulic system is, Mr. Moore remarks, at once familiar; but for the information of those who have paid little or no attention to the matter he briefly states the reason for its adoption there. In the earlier days of mining in the western States neither great depths nor great quantities of water had to be dealt with, and a simple water-wheel, generally a hurdy-gurdy, driven by a small jet from some high head, was the prime mover. A pump-bob of the simplest construction, and a bucket-lift, all of wood, completed the pitwork. Many a rig like this may be seen running yet, where placer diggings are being worked. As the mines increased in depth and larger quantities of water had to be raised, larger engines and heavier gears were necessary to do the work, and as these depths became very great the weight of the pitwork increased enormously, until finally the rate of speed, which is determined by the weight of the mass set in motion, had to be decreased beyond all practical working limits. The question then presented itself—What system of pumping can be adopted that will meet all the difficulties that are ever present where heavy pumping works have to be constructed, and that will also meet the peculiar difficulties that have to be encountered in developing the great gold and silver bodies of ore that lie within the bosom of the Sierras? The mining engineers of the coast differed in opinions. Plans of a hydraulic drainage system which would do away with all kinds of pump-rods and pitwork were now prepared, but owing to the fact that the system had never been tried, excepting in Europe, where mines of small depths had been drained, these plans were not accepted, and the old style of pumping still adhered to. Last year, however, the managers of the Combination Shaft in Virginia City adopted this hydraulic system, and at the present writing bids fair to revolutionise the draining system of the Pacific Coast.

The mine referred to by Mr. Moore to illustrate the application of the system is 2400 ft. deep, and in it the water to be pumped is to be raised from the 2400 level to a height of 800 ft., and discharged into the Sutro Tunnel, through which it is run off. Upon the 2400 level is erected a pair of hydraulic pumping engines, which receive their pressure water through supply pipes from the surface. By these two pumps (as will be fully explained hereafter) the drain water is raised through discharge column to Sutro Tunnel, and the water used in doing the work of pumping is sent back through the return pipe to a reservoir on the surface. Upon the surface there is a cast-iron accumulator, which is 60 ft. high and 25 in. in diameter. In this accumulator there are but 20 ft. of water, the remaining space being occupied by air. This air is kept constantly at a certain pressure by means of plunger pumps, which in turn are operated by a compound steam engine. These pumps, which supply the accumulator with water and keep it at a pressure great enough to run the two underground pumps, take their suction from the reservoir into which the return water is discharged.

Now, since this pipe which supplies the underground pump is of such great length, and, moreover, since the whole mass within it must be put in motion and brought to rest again during each stroke of the underground pumps, it is evident that some mechanical contrivance must be introduced for the purpose of lessening the jar in the pipes caused by the sudden stoppage of such an immense mass of water. The arrangement by which this end is now accomplished is as follows:—There is a valve which shuts off the supply of water from the underground pump. Close to the underground pump there are firmly fixed two cast-iron cylinders, in which plungers carrying the crosshead are free to move. On each side of the crosshead are strong springs, held in position by abutments. Now, when water in supply and return pipes is at rest the crosshead is exactly in the middle between the cylinders (since the plungers are so proportioned that the total pressure on one of them is precisely equal to the total pressure on the other). But after the underground pump has completed its stroke, and the total mass of water in the supply pipe has to be brought from its maximum velocity to a velocity equal to zero, the inertia of this mass (due to the maximum velocity) is supposed to be gradually reduced to zero by one plunger being forced (on account of extra pressure on the other) over to the right side. The distance it travels to the right depends, of course, upon the extra pressure produced by checking the velocity of supply water, and also upon the strength of the springs, which begin to be compressed as soon as the plungers begin to move. Now, after the crosshead has been forced over by this extra pressure to its maximum extent (the water in the three columns also coming to rest at this moment), the compressed springs will immediately react to place the crosshead and plungers in their central position, ready to again take up the inertia of the mass in supply column on the return stroke of the pumps. Thus the object of these springs is not only to assist the water in the return column in taking up the inertia of the water in the supply column, but chiefly to replace the plungers in their central position after the masses in the three columns have come to rest. The general arrangement of the system having been described, an account was next given of the manner in which the work is performed by the underground pumps.

There are two of these underground pumps situated on the 2400 level of the mine, but since they are similar and work independently of each other it is necessary to describe but one of them. They both take their supply of water through one valve. Acting independently as they do, they will not necessarily commence and finish their strokes at the same time. But, in order to discuss the system under its extreme conditions, he considered the two pumps as working together, thereby making the velocity of the supply water and the inertia of the moving masses a maximum. But it is impracticable to make these arguments intelligible without the aid of drawings which were used to illustrate them; it will, of course, be understood that although he followed the action of but one underground pump the two are alike in every respect, and both draw their water from and discharge it into the same columns. From his remarks it is seen that the sole object of these two underground pumps is to raise the drain water from the 2400 level of the mine to the Sutro Tunnel, a distance of 800 ft. The object of the accumulator upon the surface is to accumulate the water within it under a pressure great enough to work the underground pumps, and the object of the compound steam-engine and the surface pumps is to supply the accumulator with exactly the same amount of water taken from it to run the underground pumps. Furthermore, it will be noticed that the same amount of water which is used to run the underground pumps is re-

turned to the reservoir on the surface, from whence it is forced into the accumulator by the surface pumps, to be used over and over again. It may be well here to mention the fact that the surface pumps have been constructed with a capacity great enough for two more pumping engines, similar to those just described as underground pumps, so that when a depth of 1000 ft. more is reached this extra set of pumps will be put in at the 3400 level, and the process will go on as before. In the event of this new set being started the velocities in the different columns, as well as the inertias of the masses, will be increased.

REPORT FROM CORNWALL.

Nov. 10.—We are inclined to think there is an element of danger in the present position of the tin market which is little recognised. The persistent inaction of the smelters, and the rapid decrease of stocks, coupled with the peculiar characteristics of the London market, make it exceedingly probable that instead of a steady advance we shall by-and-bye have a series of rushing jumps. Next to a fall there is nothing we would more strongly deprecate. Excitement and inflation inevitably lead to jobbery, and to reckless if not absolutely fraudulent adventures, couched under the guise of speculation, to end, as usual, in Cornwall being saddled with a bad name for the mingled tricks and folly of outsiders. It is to be hoped that some definite move will be made with the least delay.

Wheal Owles account shows that we were not very far out in our estimate of the position of that mine. Mr. Boyns has again excellent cause to congratulate himself on the success of his speculative enterprise and foresight in tin stocking. He has held on so long that after having in the past three months reduced his banker's debit balance to 14,000*l.*, he has enough tin in his hutches to clear that off at any moment and pay a very handsome dividend. What is equally gratifying is the fact that the mine is now paying its way by sheer hard work. There is not, it appears, a single point in the mine worth more than 5*l.* per fathom, but then there are twice as many points being worked as in any mine in the district.

East Pool is so clearly a mine to be proud of that there is no cause to wonder at the jubilant character of the speeches made at the account. A dividend of 23s. 6d. out of a profit balance of 7767*l.*, which would have been 25s. but for an unavoidable hindrance in returning all the tin sent to the stamps, is a very handsome result, especially when we take into account also the fact that four hours every day has been devoted to the improvement of the skip-road—a work which must bear important results in the future. The various points in operation never made such a show, the 200 fathom level west being worth 100*l.* Another noteworthy feature is a new development for copper, which is by no means to be despised. Nothing could be more full and explicit than the report.

The Royal Cornwall Geological Society's annual meeting has shown that institution to be in a flourishing condition, a fair amount of work having been done during the year, and a handsome balance being carried forward. Mr. Pendarves Vivian, M.P., is succeeded in the presidency by Mr. Leonard Courtney, M.P., the Under Secretary for the Colonies, a gentleman of whom Penzance is justly proud.

Two of the papers read were of a singularly valuable character—one by Capt. W. Teague, jun., on Cornish Mining, particularly dealing with the improvement of ventilation, and his patent apparatus for this purpose, a model of which was shown, and which will form one of the chief attractions at the Exhibition of the Mining Institute at Camborne on the 7th and 8th prox. Mr. Vivian, who as a coal miner is well acquainted with the whole question of ventilation in its application to our collieries, expressed an earnest hope that Capt. Teague's device would result in a great practical improvement in this respect in the mines of Cornwall.

The other paper to which we refer was by Mr. Warington Smyth, F.R.S., on the Duchy Peru lode, in Perranzabuloe, of which he gave a full and detailed description. At all the points where this lode appeared it exhibited a great breadth, varying from 50 to 130 feet, when measured horizontally, and consisting at surface of brown iron ore, passing at the depth of 20 or 30 fathoms into the chalybeate or the spathose carbonate. In 1858 he estimated that some 50,000 tons of ore had *in toto* been raised from the lode. The silver-bearing vein cross through the iron lode in the Treamble workings, and did not appear to have been made out or followed up on the south side of them. Subsequently another cross-vein to the east of Trelask produced a moderate quantity of very rich silvery ore, and appeared to point for the western end of the Duchy Mine. At the present time two north and south veins, coming in from the north, were to be seen in the Duchy Mine, having a very pronounced dip to the eastward, distinctly cutting through the iron lode, but disappointing, so far, in their productiveness. Another remarkable product of the Perran lode was the zinc blende. It would be seen that at a number of isolated points along several miles of this lode metalliferous treasures of various kinds had been laid open, but an important question at once suggested itself—what was the nature of the lodes between these points, and what clue had they in the drivings of the present mines as to the value of the intervening ground? He feared that much of the disappointment that attended these as well as other workings arose from ignorance of the true nature of the lode. Every Cornishman must know more or less of the unstable or bunchy character of most of those deposits. He need scarcely refer to the disgraceful misrepresentations of the prospects of certain Cornish lodes which had been so rife for the last year or two, and with which, it was satisfactory to find, only a few Cornish names were connected. These misleading concoctions generally betrayed that belief in the uniformity of lodes thoughout a long run which had to be rudely shaken by a close acquaintance with them.

Incidentally Mr. Smyth thus gave very valuable advice to intending investors, and cleared the fame of the county from the allegations which have been brought against it in connection with certain only too notorious projects. Being asked as to the use of gas or electricity in mines, he replied it was after all very much a question of cost. Either gas or electricity would in most of our mines be an expensive mode of lighting, although where there was no explosive, no fire-damp, gas at present played an important part in many collieries. As regarded the electric light, they were quite at the beginning of any application of it underground, and he was afraid it would be a very dangerous thing to experimentalise on in any case where there was fire-damp.

REPORT FROM NORTH AND SOUTH STAFFORSHIRE.

Nov. 10.—House coal is this week in capital demand, and even at the full rise recently declared there is some difficulty in getting prompt supplies. Manufacturing fuel is strong as regards forward deliveries, for vendors still hold to it that a further advance will be declared by the Earl of Dudley before probably another month is out. Iron ore sold this afternoon in Birmingham tolerably briskly, at, for delivery in some cases, well into next year. Prices were strong at recent quotations. Agents of hematite and clay-band pig makers were less strong than of late. They were seeking to do business with customers whose offers a few weeks ago they promptly rejected. Open market quotations were, however, unaltered. Best Staffordshire all-mine pigs were 4*l.* 10s. for best cold blast sorts to 3*l.* 10s. for hot blast sorts. Shropshire hot blast were abundant at 3*l.* 5s. Part mines were 2*l.* 10s., and cinder pigs 2*l.* 5s. Manufactured iron was steady, but without a great many new sales to-day. Bars were 7*l.* 10s. to 6*l.* 5s., galvanising singles 8*l.* to 8*l.* 10., and boiler plates 9*l.* to 10*l.* 10s.

A meeting of the Sandwell Park Colliery Company (Limited) was held in Birmingham on Tuesday, to consider a recommendation by the directors to increase the capital of the company. It was resolved to increase the capital from 125,000*l.* to 156,250*l.*, the additional capital to be divided into 3125 shares of 10*l.* each, and every member registered in the books of the company on Nov. 24 to have the option of taking, or of nominating any person to take, one share in the new capital for every four shares held by such member in the present capital.

The Arbitrators under the South Staffordshire Mines Drainage Acts sat in Wolverhampton on Saturday to hear appeals against their proposal to make a draft mines drainage award for the Old Hill district. The full rate required was the maximum allowed by the Acts. There were a number of appeals, the principal one being by Messrs. Skidmore, Webster, and Co., of the Eagle Colliery. This firm offered to drive a level 200 yards in length from the Waterfall-lane engine of the Commissioners to their colliery of the same name, so that the Commissioners might pump their water. The Arbitrators reserved their decision for a month, during which the Commissioners will consider the offer.

A meeting of the South Staffordshire Institute of Mining Engineers was held on Monday night at the Mining Museum, Dudley. Professors Lapworth and Smith attended as a deputation from the Mason College, Birmingham, and spoke of the advantages likely to accrue to the Institute of Mining Engineers by removing its headquarters to the college. A long discussion ensued, and ultimately it was agreed by 16 votes to 12 that the deputation previously appointed should have power to treat with the trustees with a view to the removal of the headquarters of the Institute to the college.

TRADE OF THE TYNE AND WEAR.

Nov. 9.—The disturbances in the Coal and Coke Trades, caused mainly by bad weather, still continue to a considerable extent. Shipments of coal continued very active last week until Thursday, when nearly all the vessels that had arrived in those rivers had been loaded, and the shipping in the ports were detained by bad weather; sailings were, however, again resumed on Saturday. The price of coal has been well maintained; house coal is in good demand at an advance of 1s. per ton on last month's rates—that is, on the Tyne; on the Wear rather higher rates have been secured. The local business for second-class coal and for manufacturing sorts continue to improve, and most of the pits in Durham are keeping clear of stocks. On Monday there was a large arrival of steamers and sailing vessels on the Tyne, the bulk of the sailing vessels being small coasters, which have been in so much request of late. There are also some vessels from the Baltic and a number of London steamers, so that most of the collieries in the Tyne and Wear will be well employed during the remainder of the week. The total quantity of coal worked in these rivers it is evident is being increased rapidly year by year, and the comparatively early exhaustion of the best seams has been predicted by some engineers. It is well known that Sir George Elliot holds views on this subject which perhaps savour a little of Pessimism, but that he has some grounds for his gloomy views there is no doubt. The best Thick steam coal seam in Northumberland is already exhausted to a considerable extent, and in Durham some of the best seams, notably the Hutton seam, are rapidly approaching exhaustion. The hopes entertained a few years ago that good workable seams of coal of fine quality would be found below the Hutton seam in North Durham have not been realised, or at any rate only partially so. The sinking, which has continued about 80 fms. below the Hutton seam at Felling Colliery, did not prove any good seam; the Harvey or Beaumont seam, which occurs in good section, and of good quality in some large districts in South Durham is very uncertain indeed in North Durham. It is now worked at the Redheugh Colliery, in Gateshead, but the top coal worked, which is of good quality, is only from 24 to 30 in. in thickness. This seam is also worked at Heworth Colliery, where there is a tract of coal of considerable thickness. At the Team Colliery, south of Gateshead, this seam was sunk many years ago, but it has never been worked, the quality of the coal being bad; the sinking was made near the "wash," which extends from the Tyne along the Team Valley to Durham, &c. It would appear that the seams near this wash are generally deteriorated when not denuded, which appears to be a singular circumstance. The Team is a famous old colliery, the royalty belonging to Lord Ravensworth, and we find from records that coal was worked on the estate, west of the Team river, 250 years ago, and coal has been worked continuously from that time to the present time. The Hutton seam has been denuded here by the wash alluded to above, but there was a considerable tract of valuable coal in this seam on the east side of the wash, and this was worked many years by Mr. Burdon, and sold in the Thames as first-class house coal. This seam, however, has entirely exhausted some years ago, and only the inferior upper seams now remain, the bulk of them being sold as manufacturing coals, but one of the seams contains a very fair bunker coal, which is sold to river and sea-going steamers. Attempts have been made at various times to drift through the wash, and this was, we believe, successfully accomplished some time ago, and the Hutton seam reached on the west side of the Team river, but it appears to be inferior to the coal found in the same seam on the east side of the wash. It has, however, only been partially worked as yet. The iron shipbuilding trade continues very good on the Tyne. Taking the largest yards there are 51 ships in course of construction, mostly of large size. Marine engine builders are, of course, extremely busy, and many of the large works are employed night and day.

The electric light is likely to come into general use in the Tyneside factories. It has been some time in use in the large fitting shop at Palmer's works, Jarrow, where it has proved a most decided success. It has just been introduced into the extensive works of J. Redhead and Co., South Shields; the illumination of the entire establishment when completed will be by 16 lights. Messrs. Bell Brothers' blast furnaces at Low Walker, and Messrs. Leslie's shipyards, have also been lighted by the Brush light, which has so far proved to be a great success. The light is not only strong but steady and soft; it is vastly superior to gas light. The light proves of great advantage to the workmen; they can accomplish more work, and finish it to greater perfection, than by any other means of artificial light. Experiments have also been made with this light at the great Consett Ironworks. The apparatus used is what is called the sixteen light machine; but only six lights have been experimented with. The beauty and steadiness of the light was apparent, being cooler and clearer, and vastly superior in every respect to gas light. Should the experiments prove successful, of which there is little doubt, the Consett Company intend to extend its use throughout the whole of their plate mills and forges.

From the Cleveland ironmasters' returns we learn that there are 83 furnaces at work on pig-iron, and 33 on hematite, spiegel, &c., making a total of 116 furnaces in all, against 118 at the end of September. The month's make of iron of all kinds has been 212,247 tons against 221,655 tons, the net decrease being 9408 tons. The decrease in the make of Cleveland iron shows that the arrangement made with the Scotch ironmasters has been rigidly carried out. Stocks and stores have decreased to the extent of 21,991 tons. The issue of the returns caused a good deal of excitement; and, of course, a favourable change has occurred in the iron trade. The trade appears now to be in a better position than it has been at any time since the collapse of the American spurt, as for nearly the whole interval there was too much iron produced, which caused a depression of prices. With a reversal of conditions a great improvement in the trade was naturally expected, and this has occurred. The reports as to manufactured iron are satisfactory. The steel trade is also brisk; and the coal and coke trades are firm.

The chemical trade on these rivers, which is a very important one, continue to languish, although a large business is done; but the production is far ahead of the demand, and consequently an adequate price cannot be obtained for the chemicals produced. This state of affairs in connection with this trade has existed for a long period, and various attempts have been made to provide a remedy by reducing the make; but, owing to dissension amongst the principal makers, any attempt to make an agreement for the reduction of the make has proved abortive. A further attempt, however, is now to be made in this direction, and it is hoped that it may prove successful.

LUBRICATING OILS AND GREASE.—The manufacture of these articles, which are so extensively used in the every day work at our mines and factories is one of great importance, and we are strongly inclined to the opinion that the manufacture is conducted generally too much on the old system of "rule of thumb." The nature of the various ingredients used to manufacture these lubricants is, no doubt, of great importance, and some chemical knowledge of the substances appears to be absolutely necessary in order to enable the director of such works to make a lubricant for any particular purpose economical and effective. In order to effect this, at the Cleadon-Lane Grease and Oil Works, near Sunderland, which have been under the management of Mr. Edwin Clarkson some time, a chemical analysis of the various substances used has been made, conducted by an eminent chemist; and acting on the information thus gained, and under this advice, a grease has been made for lubricating wagons of all kinds either by hand greasing or by means of boxes on the axles, and for greasing coal tubs, ore wagons, &c., which we believe cannot be surpassed.

TRADE IN SOUTH WALES.

Nov. 10.—The failure of Mr. William Williams, of Tower-y-Graig Colliery, though only a small affair, is another blow which will be felt in the neighbourhood of Aberdare, following close as it does upon the reeent failure of Messrs. Hosgood and Smith, The shipments of steam coal at Cardiff, Newport, and Swansea maintain their activity; 115,524 tons have been shipped at the former port, while Newport has followed with 25,090, and Swansea with about 18,000 tons. The patent fuel trade is brisk, the principal portion, however, being done at Swansea. The death of Mr. Macdonald, the use of gunpowder in mines, and the Permanent Provident Society, are the topics which most agitate the miners in the district, while a sliding scale for the whole of the country crops up occasionally at their mass meetings. The work, however, goes on well, as shown by the large shipments, and prices are much more encouraging than they have been. The Rhymney Company have resolved to increase their capital to one million sterling, in consequence of the active condition of trade, and the large orders which are anticipated for the year 1882. At the Cyfarthfa works there is a hitch, owing to the conditions imposed by Mr. W. T. Lewes, the agent of Lord Bute, which Mr. Edward Williams, of Middlesborough, who is acting for Messrs. Crawshay, finds himself unable to comply with. Both these gentlemen are of thorough business habits, and it may be stated as a certainty that they will find a path out of the wood, as they are aiming at the same object. The amount of iron shipped at Cardiff last week was 1150 tons, while 8506 tons of Spanish and other ores were received. The condition of the tin-plate industry may be pronounced, on the whole, as somewhat brighter, as prices were nearly approximate to the cost of production there heretofore. The demand has gone on increasing for years, but the make has far exceeded it, and hence the disastrous reports which have prevailed for some six or seven years. A reduction of 25 per cent. in the make would restore health to the trade. There are no less than four projected railways from the Rhondda Valley, two of which it is proposed to connect with Swansea. The third scheme will connect Blaengwynfe with Treorky, and the fourth will run from Treherbert to Hirwain. Two of these will be probably carried out, but the other two are not yet in a sufficiently forward condition to pronouce an opinion upon.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 10.—Business at the lead mines in Derbyshire has been rather better carried on, so far as the workmen are concerned, the previous weather having interfered with ordinary operations. Still many of the mines are raising but comparatively small quantities of ore. Of late a heavy tonnage of ironstone has been imported from Wellingboro and other parts of Northamptonshire, the local stone not being so much thought of as it was formerly. There has been a good demand for pig-iron of late, a fair quantity being forwarded to Staffordshire and Lancashire, the recent advances being fully maintained. A large quantity has also been consumed at the works in the district, for some of the mills and foundries are busier than they were. In malleable castings, for which Dronfield has so long been noted, a steady business continues to be done, whilst the steelworks at the same place are as busy as ever. The coal trade of Derbyshire is in a healthy state, there being a good demand for household qualities for the Metropolis, where prices are higher than they have been for a long time, so that merchants must now be doing well, seeing that the rates at the pits do not at all correspond with what is charged to the consumers. Steam coal has also been going off well, and heavy consignments have been forwarded from a few collieries for shipment. A fair tonnage has also been sent away for locomotive purposes. Gas coal is being more extensively sent away, and a steady business has been done in engine coal for Lancashire and Cheshire. The quantity of coke made is by no means large, and whilst makers are sending it away a good deal has to be imported from Yorkshire and other districts for the use of the furnaces. Seeing that coke is about the most profitable part of the colliery owner's business, it is rather surprising that more is not made in the county, where there are so many blast furnaces.

In Sheffield trade generally is brisk, and one hears of scarcely any trade that is dull or in a languishing state, whilst the general activity is shown by the advances which have recently taken place in almost every description of the raw and manufactured material. Ordinary pig iron has sold rather more freely, and the advances made a week or two since have been fully maintained, if they have not in some instances reached a higher point. Fine hematites have also been in better request, owing to the increased consumption of steel of nearly all qualities by our manufacturers. This, of course, has led to an advance in the price for most descriptions of manufactured goods. The new steel-faced armour plates are now making their way in the estimation of continental Governments, after having been successfully tested by our own, and some heavy orders for them are now in hand at the Atlas and Cyclops Works, the only places where they so far are being rolled. Bessemer steel is in good request for several purposes, most, of course, being required for rails, in which there is plenty doing at rates from 7*l.* 5s. to 7*l.* 10s. for new orders, but a good deal of what is being turned out on contract taken some time since leaves no margin of profit, so great a difference has there been as regards the past and present charges for the raw material. Railway material, including sleepers, springs, tyres, axles, and wheels continue in good demand. Wheels, suitable for colliery owners, made of steel, are now being more inquired for, as they are for their great durability the cheapest, although rather more costly in the first instance. There is not much doing in light agricultural implements; but there is a fair output of sheepshears and edge tools, a good deal of the latter being for exportation.

Most of the cutlery houses are now favourably off for business, and all the more perhaps is being done in the best qualities of knives, still secondary descriptions have been going off tolerably well. In ordinary iron goods trade has been steady, and the men are, as a rule, well employed. The mills engaged on boiler and ship plates and wire are running well. In crucible steel more is being done than for a considerable time past, nearly all qualities and brands being in request, not only for our local manufacturers but for shipment as well. Foundry material has been going off more freely of late in both light and heavy castings, and in some instances household fittings have been more actively enquired after. At Parkgate the mills have been doing well, and the company has just put a sixth furnace in blast, a good deal of the stone coming from a distance. Some from North Lincolnshire, where a lease is held of a considerable area of ground near to Frodingham, on the estate of Mr. R. Winn. Some Northamptonshire is also being received into the district, and is mixed with other ore, producing a really good quality of pig. At Thorncliffe and Chapeltown—the works at which have just been taken over by a company—business has been tolerably good all round, the firm having several specialities, connected with gas making in particular, that keep them tolerably well going at nearly all seasons. From the pits belonging to the firm a large quantity of coal is being raised, and about 5000 tons a week is now being sent from them to the Metropolis alone. The works at Penistone continue to be busily engaged on Bessemer rails as well as forgings, large quantities of which are being sent away for home and other uses.

In South Yorkshire the collieries are working most favourably, the demand for house coal being brisk, whilst a considerable tonnage of steam qualities are being forwarded to the Humber for shipment to the Baltic ports, shippers being anxious to have another voyage before the ice has stopped all navigation. It was stated last week that the ice had been met with, but it appears it was of no thickness, and was dispersed by the rather high winds, but it is evident

that the sea will not be open much longer. The activity in the coal trade generally, and the advance of prices that has taken place, is causing the men to ask for an advance of wages, which has been particularly low during the whole of the year, and, all things considered, there is every reason to believe that an advance will shortly be conceded.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Nov. 10.—The Elwyn Valley and Pencelley slate and slab quarries in Carmarthenshire, to which I have formerly referred as in course of development, have been, especially the first, at a standstill for some time past. Consequent, however, upon the revival in the slate trade, these quarries, which promise to be among the best in South Wales, are to be fully developed. The last quarry is being worked quietly, but profitably, by a private gentleman, but its resources require larger means. The first-named is about being taken over by a company, to be opened out on a large scale. The machinery at the Bryn Dyfi Lead Mine, Cardiganshire, is now complete, and it is to be started in its work of dressing the piles and reserves of ore at the mine this week. This machinery, for arrangement and adaptation, is spoken of as among the best in Cardiganshire, and as well deserving a visit. The papers abound, unfortunately, in the record of accidents which have happened throughout the Principality at mines, quarries, and collieries through the last week. Happily the record of the death of a man at the stone quarries of the Liverpool Corporation, at Llanwddyn, through a fall of rock last week, is not true. In West Lancashire the colliery owners are advancing the men's wages 10 per cent., and a run through the colliery and iron districts of South Wales this week showed me a state of activity which I have not seen for a long time. One exception to this is in the appearance of the Patent Fuel Works, near Neath. But, then, these are not exceptions to the general fate of all works intended to make substitutes for coal, or, indeed, to supplement its use. It may be set down as an axiom that it does not pay to make artificially what Nature has produced and offers cheaply.

USE OF EXPLOSIVES IN COLLIERIES.

The official communication from the Home Secretary through the Government Inspectors to those amenable to the Coal Mines Regulation Act, 1872, published in the *Mining Journal* of Oct. 1, giving the opinion of the law officers of the Crown with regard to the clauses of the Act controlling the use of explosives in mines, has given rise to many animated discussions, it being beyond question that a larger number of practical men regard the total prohibition of blasting as impracticable than entertain the opposite opinion, and as the late Mr. A Macdonald, writing to Mr. Ellis Lever only a week before his death—"The fight is with the men as well as with the employers." In a long letter upon the subject Mr. Ellis Lever says—"The anticipation of Mr. Macdonald is borne out by the report of a special meeting of the Mining Association of Great Britain, held in Westminster Palace Hotel during the present week, which was attended by colliery proprietors and mining engineers from all parts of the country. The cause of that meeting was the circular recently issued by the Home Secretary respecting blasting in coal mines under the Act of 1872. It appears from the report that the South Wales and Monmouth colliery delegates (representing the workmen) waited by appointment upon Lord Aberdare, and gave their reasons against the Government prohibition of blasting by gunpowder in collieries so long as the colliers were in the workings. Lord Aberdare appeared to acquiesce in the general tenour of the views of the deputation, and it was arranged that representation thereof should be made to the Home Secretary. It seems, therefore, that it is intended to bring pressure to bear upon Sir William Harcourt to induce the Government to rescind the recently issued order against gunpowder blasting or firing shots when the men are at work in the pit. In April last year I had the honour of an interview with Sir William Harcourt at Derby, and afterwards wrote him at the Home Office, stating many reasons and quoting several eminent authorities for the Government prohibition of blasting by gunpowder in all fiery seams. I was informed in reply that the Home Secretary was painfully alive to the importance of the question, and that the subject was engaging his anxious attention. Since that time several explosions have occurred, notably those at Lycett, Seaham, Risca, Pen-y-Craig, and Wrexham. Representations from the Government Inspectors of Mines have been made to the Home Office on the subject of gunpowder blasting, and at length, and not too soon, an edict has been issued which practically abolishes this dangerous practice. Some years ago, with a desire to lessen the risks to which life and property are constantly exposed in collieries from the use of gunpowder, I gave all the assistance in my power to the inventor of a system of blasting by compressed air as a substitute for gunpowder, and this invention, which has been perfected at great cost, has been tried and found thoroughly efficient for the purpose of breaking down coal without danger to life or limb, and more advantageously than is possible by gunpowder, In this case, as in that of nearly every other new invention, difficulties and obstacles were put in the way of its introduction, but the greatest obstacle of all was the continued use of gunpowder, which completely blocked the way."

But the question which Mr. Ellis Lever has raised is not so much that of the practicability or otherwise of prohibiting the use of explosives in mines, but whether the use of the invention of one Ernst Reuss should be made compulsory as a substitute for explosives. But as a matter of fact Reuss's apparatus does not in any way compete with explosives, but with the various wedges and hydraulic cartridges which have from time to time been proposed, and it has yet to be proved that it is an improvement upon these, for it is simply absurd to urge that the bursting force of a metal cylinder and of a charge of gunpowder, dynamite, or other explosive bear even a remote resemblance to each other, and it is probably the acknowledged failure of all the contrivances of the bursting cylinder class that has made Mr. Reuss so anxious to dissociate his invention from them. Hence he states—though his language is purely figurative—that his mode of working is very little different than that where gunpowder is used. The coal is holed and nicked, but instead of gunpowder being put in the shot hole a cast-iron cartridge is put in the place of gunpowder of different degrees of strength, equalling ¼ lb., ½ lb., and 1 lb. powder shots. As soon as the coal is ready holed for the shot a hole is bored 3 in. diameter and 4 ft. 6 in. deep into the coal. This is afterwards stemmed, the air pipes attached, pumps are connected, and as soon as the cast-iron cartridge bursts the coal is thrown down, and this without shattering the coal; in fact, while the shot is being fired you can with safety sit 6 ft. from the face of the coal. So well satisfied of this was Colonel Blundell that he when he came from London to witness the experiments in his colliery placed himself, with my sons and daughters, who had been brought to show faith in the system, within 5 ft. of the coal. There is a good deal of theatrical inflation in this description, but the practical man at once strips off the tinsel, or looks behind it, and the mere fact of a man placing himself and friends in a dangerous position proves nothing. The success or failure of mechanical substitutes for blasting with explosives depends, moreover, in a great measure upon the nature of the coal.

In a paper on "Experiments with Compressed Air for bringing down Coal," read by Mr. Craig before the North Staffordshire Institute of Mining and Mechanical Engineers, the machine was still more fully described. The machine he said was a drilling or circular cutting machine, a cartridge, and a blasting or air-pumping machine. To place the drilling apparatus in position, a hole from 8 to 10 in. deep must be made by hand in the face of the coal, and in that the leg of the machine was fastened by means of a nut, which, being turned, wedged some taper keys securely against the side of the hole. The cutting tool was then fixed, and made to revolve, and the boring of the main hole, which could be directed to any angle, was commenced. Behind the cutter there was a double archimedean screw, which, as the depth of the hole increased, it was necessary to lengthen, and in preference to having one long screw it was best to keep adding 6-in. lengths till the desired depth was reached, by which means a straighter hole could be drilled than by one long screw. The cartridge was simply a hollow cast-iron cylinder, varying in strength to suit the class of coal. It was estimated that to burst a cartridge half an inch in thickness a pressure of 6700 lbs. per square inch was necessary, and for every additional 16th of an inch in thickness an increase of 1000 lbs. to 1500 lbs. per square inch was required. The blast or air-pumping machine pumped the air into the cartridge. The pumps were of the simplest construction, and the whole machine was worked by two men. The machine was made to run on rails, and would stand about 3 ft. 6 ins. in height. The connection between the machine and the cartridge was made by means of hydraulic tubing, which had an internal diameter 1-23rd part of an inch, the whole machine and connections being made capable of standing a pressure of 20,000 lbs. per square inch. Having described the charging of a hole, he said that a sufficient length of hydraulic tubing was connected with the blasting machine, and the latter being placed in a secure position, the pumping began. A gauge fixed on the machines showed how the pressure was increasing. With the air a small quantity of water was also pumped into the cartridge to act as a slight check upon the violence of the expansion at the bursting of the cartridge. When the pressure reached about 6700 lbs., the cartridge exploded, and the coal was brought down. The explosion was not accompanied by any great noise, and pieces of coal were not thrown any distance. From what he had seen the coal simply fell, and it was not necessary for the machine to be more than half-a-dozen yards from the face. After the explosion a slight mist was visible floating about in the air, and the place was perceptibly cooled. He gave details taken down by Mr. J. R. Haines when the machine was tried in the Ballhurst seam at the Harecastle Collieries, showing the time taken in boring a hole and exploding a cartridge. A hole 2½ ins. in diameter was drilled in the coal 9 ins. deep by hand, and the time occupied in fixing the drilling machine was 15 minutes. The time taken in drilling was 4 minutes 15 seconds Time taken in lengthening the drill 7 minutes 58 seconds. Fifteen minutes were then expended in removing the cutting machine, inserting the cartridge, and stemming the hole. It afterwards took 26½ minutes connecting the cartridge to and to fix the blasting machine. Two men then commenced to work the machine in order to fill the cartridge at 12·26½ p.m., and at 1·11 the pressure was 7600 lbs. when the cartridge exploded. It was apparent that, with the exception of accidents and delay, the time taken in fixing the cutting machine, boring the hole, and exploding the cartridge would have been 47 minutes 13 seconds. Allowing 10 minutes for stemming the hole and making the connection with the air-pumping machine, the time occupied would have been 57 minutes.

That Mr. Reuss's invention has much to recommend it, as compared with wedges and the like, is beyond question; but if, as it is claimed, Mr. Reuss has perfectly succeeded after numerous failures, and has now a machine which not only does the work safely but more economically than any other kind of exploding agent, he will not require legislative compulsion to enforce its introduction; but, as a very good authority writing upon the subject says, we are perfectly aware that several of the Inspectors of mines go on repeating an opinion adverse to the use of explosives in fiery mines year after year. We cordially agree with them that there are circumstances in which their use is fraught with the most imminent danger. But is this a sufficient reason for driving them out of use in all mines in which gas is found, even once in three months? Surely some middle course might be adopted, whereby those classes of mines in which thousands of shots have been fired yearly for generations without an accident might be allowed to continue as before, and those only in which everyone must admit the existence of danger might be subjected to far more stringent regulations than those that now exist, even admitting the new reading of the eighth general rule. It is much to be hoped that Mr. Reuss's invention will have a full trial, but until much more has been proved concerning it no mention of it can be made as justifying the total and compulsory prohibition of blasting with explosives.

EAST LONG RAKE.

IMPORTANT DISCOVERY.

A splendid discovery has recently been made on this mine. At a depth of only 12 ft. from surface a large body of ore has been discovered, from which solid blocks of lead weighing half a hundredweight have been raised.

This is now being worked on tribute at a good profit to the company. These ore deposits (or "flats" as they are called) in the limestone FREQUENTLY RETURN MANY THOUSANDS OF POUNDS WORTH OF LEAD, and there is every probability of this one being highly productive.

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ELECTRIC BATTERIES.—The object of the invention of Captain F. R. DE WOLSKI, of Gosport, is to reduce the internal or fluid resistance of the cells of electric batteries, to increase their electro motive force, to diminish local action, to render more constant both the electro motive force and the resistance of such cells, and thus to increase their efficiency, and diminish the cost of working. This he does by limiting the electric action to the opposing surfaces of the plates forming the electrodes of the cells, the reverse surface of either or both plates being rendered inactive, either by being coated with an insulating material, or by so arranging the elements in the cell as to render inactive the reverse surface of either or both plates. Every form of cell can be modified or converted on this principle. For example, when using suspended plates in a cell he coats the reverse surface of both the generating and collecting plate with an insulating material, such as sealing wax, varnish, in order to render those surfaces inactive. Again, for example, when he uses cylindrical plates he can treat them in a similar manner, or he forms the jar or vessel containing the cell of one of the plates, or he lines the jar or vessel with one of the plates, so that the reverse surface of this plate is out of action, the other plate being also in the form of a cylinder concentric with the outer plate inside which it is placed, its exterior surface only being brought into action.

THE MERSEY TUNNEL PUMPING-ENGINES.

The engines put down in conection with that great work, the Mersey Tunnel, are those patented by Mr. Davey, and made by Messrs. Hathorn, Davey, and Co., of Leeds. The engine is different to those ordinarily employed for pumping, there being in particular a differential arrangement of the valve gear for effecting the distribution of the steam. The engine has a pair of horizontal cylinders, the back end of the high-pressure cylinder forming the front cover of the low-pressure cylinder. There are two piston-rods to the low-pressure piston, which pass through tubes cast on the sides of the jacket of the high-pressure cylinder. These two rods, and that of the high-pressure cylinder between them, are all fixed to one crosshead, to which is attached the connecting rod for working the pumps. The cylinders are bolted down upon a strong girder bed, and the condenser is carried on to a separate bed behind the low-pressure cylinder, the air-pump being worked by a tail-road from the low-pressure piston. The differential valve gear is considered the main feature of the engine. The main slide valve is actuated by the piston-rod through a lever worked on a fixed centre, which reduces the motion to the required extent, and reverses its direction. The valve spindle is not coupled direct to this lever, but to an intermediate lever, which is jointed to the first one at one end, the other end being jointed to the piston-rod of a small subsidiary steam cylinder, which has a motion independent of the engine cylinder, its slide valve being actuated by a third lever, coupled at one end by an intermediate lever, and moving on a fixed centre at the other end. The motion of the piston in the subsidiary cylinder is controlled by a cataract cylinder on the same piston-rod, by which the motion of this piston is made unform throughout the stroke, and the regulating plug can be adjusted to give any desired time for the stroke.

At the beginning of the stroke the subsidiary piston is moving in the same direction as the engine piston, and in the case of a light load the engine piston, having less resistance to encounter, moves off at a higher speed, and soon overtakes the subsidiary piston moving at a constant speed under the control of the cataract, the closing of the main valve being consequently accelerated, so causing an earlier cut off; but with a heavy lode the engine piston encountering greater resistance moves off more slowly, and the subsidiary piston has time consequently to advance further in its stroke before it is overtaken, thus retarding the closing of the main valve, and causing it to cut off later. The subsidiary piston being made to move at a uniform velocity by means of the cataract the cut off takes place at the same point in each stroke so long as the engine continues to work at a uniform speed, but if the speed of the engine becomes changed in consequence of the variation of the load the subsidiary piston has not time to advance so far in its stroke before the cut off takes place, and the cut off is, therefore, effected sooner; but if the load is increased, causing the engine stroke to be slower, the additional time allows the subsidiary piston to advance further before the cut off takes place. The adjustment of the cut off point according to the variation in the load is entirely self-acting, and takes place instantly, so that the engine is rendered safe in working against variable loads, and automatically and instantly varies the distribution of the steam with every increase or decrease of the resistance. There is entire freedom from shocks in the pumps, or accidents from the bursting of pipes. Such is a brief notice of the pumping-engines which are to take a most important part in tunnelling under the Mersey, a work which is looked forward to with no ordinary interest throughout the kingdom.

IMPROVEMENT IN PUMPS.

The invention of Mr C. BLASENDORFF, of Berlin, relates to pumps which are required to draw water or other fluid from greater depths than the maximum suction height of the fluid to be raised. This is effected by the employment of a hydraulic spear or rod, the pipe of which serves also as a rising main, and of one or more auxilliary pumps placed at certain depths in the well. An ordinary suction pump without suction valve, but with valved piston or bucket, is connected by a pipe with an auxilliary pump with differential pistons. The smaller differential piston is an ordinary suction piston or bucket with a valve, and is connected by a rod with the larger differential piston. The latter is larger than the former in proportion to the head of the lift. (Fröderhhone.) The auxilliary pump communicates by the aforesaid pipe with the first mentioned pump, and is furnished with a suction valve and suction pipe. The large differential piston is to be loaded more or less, according to the head. This pump works thus: Assuming that both pumps as well as the pipes are filled with water, and that the larger differential piston is near its highest position; if the piston of the ordinary pump is moved downwards, the water passes through the valve of the said piston to the upper side thereof, the piston then being moved upwards it draws the water out of the auxilliary pump. Supposing that the load on the larger differential piston is regulated so that the pressure of the atmosphere suffices to press the said piston down, if the piston of the ordinary pump is now moved downwards again, the column of water in the pipe connecting the two pumps causes the two differential pistons to rise, whereby the smaller of the two draws up water through the suction pipe if the column of water is strong enough.

During the complete upward stroke of the piston of the ordinary pump a quantity is drawn from the differential pump, which corresponds to the space swept through by the larger differential piston, and there re-enters into the auxiliary pump during a complete upward stroke of the differential pistons, a quantity of fluid equal to the differential space swept through by the two pistons. When the larger differential piston has reached the end of its stroke a further downward movement of the piston of the ordinary pump effects the opening of its valve, so that as much fluid passes to the upper side of the said piston as was previously drawn up by the smaller differential piston. In some cases the larger differential piston must be unloaded or balanced. This is effected most conveniently by a lever and weight. In other cases the larger differential piston must be loaded by means of weights, a column of fluid of suitable height, or an air vessel. Instead of an ordinary suction pump being used to draw from the differential pump a force-pump may be used.

In another arrangement a force pump with outlets for fluid at various heights is employed, such outlets being provided with cocks or valves. In order to obviate the prejudicial influence of variable heads on the auxiliary pump, the force pump is furnished with differential pistons. Both these pistons are constructed as solid pistons. The connecting pipe is in communication with the space between the two pistons, and the space under the smaller of these two pistons is also connected with the said pipe by a branch pipe which is fitted with a suction valve. It is necessary that the areas of the differential pistons of the force-pump should stand in the same relation to each other as the pistons of the differential pump, whereby neither too much nor too little fluid remains between the pistons of the force-pump. At the downward movement of the two pistons of the force-pump the suction valve closes, so that the pressure of the water column is kept out of the auxiliary pump.

With very long conduits another modification may be used with advantage; in this arrangement the piston of the lift-pump is constructed as follows:—A cup leather is screwed fast between two rings, which are furnished with screw threads; to the piston-rod above the piston there is fixed a solid plate, and to the same rod below the piston is fixed a perforated plate in such manner that the distance between the plates is larger than the thickness of the piston. When both pumps and the pipes are filled with water, and the piston-rod is pressed downwards, the upper plate of the piston of the lift

pump lays on the upper ring of such piston, so that the passage of the fluid through the said piston is prevented. If now the piston-rod of the lift-pump is drawn up the upper plate rises from off the upper ring, and the lower perforated plate comes against the lower ring, and the fluid is free to pass through the piston to the upper side and to flow away.

It is evident that several auxiliary pumps of the kind above mentioned may be employed one above the other, but it is to be remarked that all these auxiliary pumps, with the exception of the deepest one, must be provided with a suction valve. It may further be remarked that the auxiliary pump with differential pistons may be divided into two separate pump cylinders, each with one piston, in which case the lower pump cylinder forms the suction pump, and is provided with suction and delivery valves, and the piston of this cylinder is connected with the piston of the working cylinder, and is to be suitably loaded. According to another modification a twin auxiliary pump is employed, which can be connected with a double acting pump without suction valve or with two single acting reciprocating pumps. This auxiliary pump consists of two suction cylinders with suction pistons and two suction and two delivery valves, also of a working cylinder with a working piston; these three pistons are concentric and connected together by one rod. In this case the balance weight is replaced alternately by one of the water columns of the connecting pipes. Instead of the lift pump with peculiarly constructed piston above referred to, a pump arranged with a slide valve and solid piston may be employed, and a double acting pump arranged on the same principle with two slide valves may be employed with the above mentioned twin pumps.

ELECTRIC DRILLS.—Drilling machines operated by electricity, and which are specially adapted for use as portable drilling machines to be held up to the work by hand, have been proposed by Mr. J. H. Thomson, of Shoeburyness. The drill worked by electricity is contained in a metal frame, in the central part of which are fitted two revolving drill spindles, one within the other, the larger being hollow and the smaller one solid. The small spindle has at its end a shoulder on to which a drill or bit is fitted, and prevented from turning on the spindle by means of a feather and slot. Another drill or bit is similarly fitted on to a shoulder on the hollow spindle, and is made hollow to allow of the drill or bit on the small spindle revolving within it. The revolving spindles are driven in opposite directions, each having fixed to it a bevel toothed wheel, which two wheels gear into and are operated by two bevel pinions, each fixed to a tubular part or sleeve made so as to revolve on a fixed axis at right angles to the revolving spindles, such axis passing from side to side of the frame, an aperture through the same being provided for the small drill spindle to work in. To each of the loose tubular parts or sleeves is fixed a disc, to which eight pairs of iron bars are connected. The said bars are wound with insulated wire so as to form electro magnets. These in turn attract armatures fixed to the frame. The electric current is admitted through a terminal, whence it passes to a contact maker, thence to brushes, and from these latter to insulated rings, each split into eight parts to correspond to the magnete, and so arranged that only those magnets are in action which are approaching the armatures. From the magnets the electric current passes to another set of insulated rings, and thence by the brushes to a terminal. The connecting wires pass along the frame of the machine. Suitable handles are provided by which the operator may hold and work the machine. If the diameter of the small drill or bit be in the ratio of 794 (or thereabouts) to the diameter of the larger drill or bit, the two drills or bits will counteract each other, and the frame will not have a tendency to turn round. Single drills or bits may however be employed when (as in the case of small work) convenient.

APPARATUS FOR SUBAQUEOUS BORING.—The invention of Mr. THOMAS ENGLISH, of Hawley, Dartford, relates to apparatus for boring under water, arranged in such a manner as to permit boring operations to be continued notwithstanding tidal or other currents or changes of the water level, or movements of the barge or other vessel from which the apparatus is worked. For this purpose he employs a rotating boring tube, having at its end suitable cutters which when hard rock has to be bored, may be arranged as in diamond rock drills; and he steadies this tube in a vertical or a more or less inclined attitude by a frame resting on the bottom, the tube itself extending some distance above the surface of the water. At the upper end of the tube he provides a bearing for it in a framing, in which there is also a bearing for a short shaft at or about right angles to the tube carrying a bevel wheel, which gears with a bevel wheel on the tube. The framing also carries a weight, the effect of which may be increased or diminished as required for the nature of the work by means of a counterweight connected to the frame of the drill tube by a rope or chain passing over pulleys on a jib or derrick mounted on a barge or other suitable floating vessel moored in the required position. On board this vessel he provides an engine or other suitable motor, and he connects a revolving shaft of this motor to that of the bevel wheel, which works the drill by a flexible twisted wire shaft, such as is frequently employed for working drills in various positions and attitudes. He also connects from pumps on the barge or floating vessel a flexible hose, conducting water under pressure to the interior of the drill tube. The steadying frame, which may be of tripod or open pyramidal form, being placed on the bottom. The boring tube is lowered by means of the jib or derrick chain into guides provided in the steadying frame, and its counterweight is adjusted to suit the nature of the ground or rock to be bored; it is then by means of the flexible shaft and gearing caused to revolve while water is forced through it to scour out the borings, the tube descending as the hole becomes deepened. When it has descended a certain distance the gearing and its frame are detached, an additional length of tube is added, and the boring is continued.

VAN MINES--MONTHLY REPORT.

Nov. 10.—As under, I beg to hand you my monthly report upon this mine:—The 120 west, which may be called our pioneer level, is still driving in a very nice lode, worth for lead ore fully 2 tons per cubic fathom. This level, it should be remembered, is driving in the bastard outside, and on the hanging-wall of the main lode. The main lode for 10 ft. wide is productive, as proved by the last cross-cut driven. We are making good progress in the sinking of the 153 winze below the 105 west, which is also producing lead ore in variable quantities. The 15 east is pushed forward as rapidly as four men can drive it, but so far we have discovered nothing worth reporting. The stopes throughout the mine are much the same in width and value as last reported, taken as a whole. In one or two there is a slight temporary falling off, which is compensated by improvements in other stopes. At Van Hill we are driving by two men upon a good looking lode, but producing no lead to value. I shall send you in a few days a plan of the surface, showing the different lodes and intersections, with suggestions as to trials that ought to be made to thoroughly try the sett. At surface everything is going on regularly. Our four-weekly sale takes place to-day, upon 200 tons of lead ore and 100 tons of blende. We are going ahead with the removal of the old boiler from the stone-breaker engine, and will have the other boiler in work in as short a time as possible,—W. H. WILLIAHS.

CHEMICALS AND MINERALS.—Messrs. J. B. Spence and Co. (Nov. 5)—Acetate of Lime: Good brown, 11*l.* per ton.—Alum: Loose lump, 5*l.* 15s.—Ammonia: Muriate, 30*l.*—Acid: Oxalic, 6½*d.* per lb.—Arsenic: Best white powdered, 10*l.* 5s.—Bleaching Powder: 4*l.* 17s. 6d.—Borax: Refined English, 62*l.* 10s.—Copperas: Green, 40s.—Copper: Sulphate, 21*l.*—Magnesia: Epsom Salts, 2*l.* 7s. 6d.—Nitrate of Lead: 27*l.*—Nitrate of Soda: 14s. 9d.—Potash: Best British yellow Prussiate, 10½*d.* per lb.—Soda: Cream caustic, 8*l.* 12s. 6d.—Sugar of Lead: White, 32*l.* 10s.—Sulphate of Zinc: 9*l.*—Sulphur: Roll, 9*l.*—White Lead: 18*l.* 10s.—Brimstone: Best thirds, 6*l.* 7s. 6d.—China-clay: 28s.—Ochre: 5*l.* 15s.—Oxide of Zinc: New Jersey, 23*l.* 10s.—Copper: Best Ingot, 74*l.*—Lead: Best soft English pig, 15*l.* 10s.—Pig-Iron: No. 3 Foundry, 41s. 3d.—Spelter: English, 13*l.*—Tin: British common block, 105*l.*—Cream of Tartar: Crystals, 120s.—Tartaric Acid: Crystals, 1s. 7½*d.* per lb.—Naphtha: vegetable solvent, 4s. 3d.

Messrs. PIXLEY and ABELL—GOLD: We have but one arrival to report this week, that of 78,900*l.* per Lusitania, from Australia; the sovereigns by her, 43,460*l.* in value, will go to the Bank, the remainder of the consignment will be exported. There is, however, but little demand for abroad. The only withdrawal from the Bank has been 50,000*l.*, Sovereigns, for Egypt. The Moselle takes 5000*l.* to the West Indies, and the Pekin 30,000*l.* to Bombay.—SILVER: The market became slightly weaker after our last, and 51⅞*d.* per ounce was all that could be obtained for the quantity by the Pliny. The rate remains steady at this quotation, and we think a fractional improvement would be witnessed for any amounts that could be shipped at once. We have received the following sums:—15,600*l.* from the River Plate; 50,000*l.* from New York; 12,000*l.* from Australia; 12,000*l.* from Bombay: total, 89,600*l.* The Moselle takes 19,200*l.* to the West Indies, and the Pekin 44,200*l.* to India.

DEVON FRIENDSHIP.—Progress in the works and improvement in the lode proceed here rapidly. The adit end is improved, being described by the agent as "now full 4 feet wide of a splendid character, producing from 6 to 7 tons of arsenical mundic per fathom." No. 1 stope in the back of the level is worth 10½ tons per fathom, said to be "a fine looking lode indeed;" and the other three stopes are each worth 3 tons per fathom. In a few days they will be in the 30 fathom level (under adit), and they will then be able to cut through the lode in the winze which has been found sunk 11 fathoms under the adit, on one part of the lode only; but what is seen is very promising. The 12 fathom levels are driven only 5 fathoms altogether, and here also the appearances are most favourable. Discoveries of value and importance may be daily looked for.

TANKERVILLE GREAT CONSOLS.—They have sold this week parcels of lead ore from the three mines, and a parcel of blende from Bog, for the aggregate sum of 909*l.* The report, which will be found in the usual place, is favourable.

EAST ROMAN GRAVELS.—The 97 has considerably improved, being now valued at 2½ tons of lead ore per fathom. Now that boring machinery has been adopted here the ground will be opened more rapidly and corresponding results may be expected in the returns, which at present are 40 tons of lead ore per month, and occasional sales of blende.

NANT-Y-CRIA MINE.—The first parcel of lead ore from the new discovery was sold on Thursday to Messrs. Walker, Parker, and Co., and the previous day the lode was cross-cut about 50 fathoms east of the point where the discovery was made, with from 12 to 15 fathoms of backs, and proving it, almost beyond doubt, to be the lode which is opened on by the quarry level at the dressing-floors some 600 fms. east. Isaac Hughes, his son, and the sheep deserve great credit for their joint share in the discovery.

SOUTH TOLCARNE MINE.—At the ordinary meeting yesterday the accounts showed a debit balance of 1152*l.* The report read by Mr. Angove was of a very encouraging character, and it was decided to erect dressing machinery at a cost of 3500*l.* A call of 7s. 6d. per share was made to clear off the debit balance, and towards meeting the costs of the new machinery.

EAST LOVELL MINE.—The ordinary general meeting of shareholders was held at Mr. Bartlett's offices, Great St. Helen's, yesterday, Mr. H. Rogers in the chair. The accounts showed a debit balance of 268*l.* The report read was of a favourable character, and spoke hopefully with regard to the future prospects of the mine. A call of 10s. per share was made. A full report will appear in next week's Journal.

GOODEVERE.—The new lode discovered in cutting wheel-pit proves to be very rich; and although only driven a few fathoms upon into the hill, is turning out good tinstuff for the stamps. This mine will soon be in the market with a parcel of tin; and, as it is worked entirely by water-power, profitable results may be looked for at an early date.

TAUNUS.—The mine mine is looking well, and large returns may be anticipated. Capt. William Hollow, late manager of Providence Mines, St. Ives, Cornwall, leaves to-day to take up the resident superintendence of the mines.

WEST GODOLPHIN.—The general meeting of shareholders was held at the offices, Union-court, Old Broad-street, on Thursday—Mr. R. W. Gold in the chair. The statement of accounts showed a balance of 115*l.* 2s. 3d. against the mine, and a call of 2s. 6d. per share was made. The prospects of the company are reported as favourable

A company is being formed under the name of the Guinea Coast Gold Mining Company (Limited) for working mines situate in British territory on the Gold Coast of Africa.

A petition for the winding-up of the Cambrian Mining Company (Limited) has been presented by Mr. Thomas Adams, of Manchester, and is to be heard on the 18th inst.

HOOVER HILL GOLD.—Telegram dated Nov. 5, received from the mine at Hoover Hill, North Carolina: Capital improvement bottom of Gallimore shaft, gold visible throughout the rock.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 29	—Powell	20	£ 9 4 0	Nevill, Druce, and Co.
	—Nant-y-Cria	15	9 1 6	Walker, Parker, & Co.
Nov. 8	—Pandora	25	8 16 6	Sheldon, Bush, & Co.
10	—Talargoch:—			
	Maesyrewddu	40	10 8 6	Adam Eyton.
	ditto	45	10 4 6	Walker, Parker, & Co.
	Coetia Llys	15	10 5 0	ditto
	—North Hendre	50	9 11 6	ditto
	— ditto	25	9 8 6	Adam Eyton.
	— ditto	25	9 8 6	Walker, Parker, & Co.
	—Rhosesmor	25	9 12 6	Adam Eyton.
	— ditto	25	9 12 6	Walker, Parker, & Co.
	— ditto	50	9 12 6	ditto
	—Rhydalun	20	9 11 6	Adam Eyton.
	—Pioneer	10	8 15 0	Sheldon, Bush, and Co.
	—True Blue	5	9 1 6	Adam Eyton.
	—Coetia Mawr	5	9 2 6	Sheldon, Bush, and Co.
	—Van	140	10 16 0	Walker, Parker, & Co.
	— ditto	40	11 1 0	Nevill, Druce, and Co.
	— ditto	20	10 16 0	Weston, Son, and Co.
	—Tankerville Great Consols:—			
	Tankerville	60	9 3 6	Walker, Parker, & Co.
	— ditto	10	7 3 0	Nevill, Druce, and Co.
	—Bog	15	9 5 6	Walker. Parker, & Co.
	—Pennerley	25	9 3 6	ditto
11	—South Darren	45	14 15 0	Nevill, Druce, and Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 29	—Powell	22	£3 10 0	Swansea Vale Co.
Nov. 8	—Pandora	35	1 15 0	Villiers Spelter Co.
9	—Talargoch	70	3 11 0	Bagillt Spelter Co.
	— ditto	70	3 8 6	ditto
	— ditto	62	3 7 0	Crown Zinc Co.
	— ditto	62	3 7 0	Vivian and Sons.
	— ditto	16	3 7 0	Villiers Spelter Co.
10	—Van	100	2 11 0	Kenrick and Son.
	—Tankerville Great Consols:—			
	Bog	35	4 4 6	Crown Zinc Co.

COPPER ORES.

Sampled Oct. 19, and sold at Tabb's Hotel, Redruth, Nov. 3.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellanear	79	£4 1 0	Mellanear	60	£2 2 0
ditto	76	3 16 6	ditto	49	1 18 6
ditto	75	3 15 0	Wheal Jewell	69	1 12 6
ditto	71	4 1 0	ditto	53	3 14 0
ditto	70	2 10 0	Wheal Eliza	35	5 9 0
ditto	65	2 10 0	Grt. Crinnis & Carlyon	20	4 17 6
ditto	61	2 10 0			

TOTAL PRODUCE.

Mellanear	606	£1889 15 6	Wheal Eliza	35	£ 190 15 0
Wheal Jewell	122	308 4 6	Great Crinnis, &c.	20	97 10 0

Average standard	£97 11 0	Average produce	6⅛
Average price per ton	£3 3 5		
Quantity of ore	783	Quantity of fine copper, 47 tons 11 cwts.	
Amount of money	£2486 5 0		

LAST SALE.—Average standard. £101 4 0 | Average produce 5⅝
Standard of corresponding sale last month, £93 14 0 | Produce, 6¾

COMPANIES BY WHOM THE ORES WERE PURCHASED,

Name.	Tons.	Amount.
Vivian and Sons	182⅔	£ 717 9 4
Grenfell and Sons	161	485 12 9
Nevill, Druce, and Co.	163½	394 8 4
Williams, Foster, and Co.	192	642 1 0
Mason and Elkington	84½	246 13 7
Total	783	£2486 5 0

NO SALE on Thursday last, November 10.

Copper ores for sale on Thursday next, at the Royal Hotel, Truro—Mines and parcels.—Devon Great Consols 945—Gunnislake (Clitters) 457—South Caradon 370—Marke Valley 175—Glasgow Caradon 110—Prince of Wales 72—New West Caradon 50—Phœnix Mines 32—Mid-Devon Mine 16.—Total, 2227 tons.

WANTED, by a PRACTICAL LEAD WORKS MANAGER a RE-ENGAGEMENT. Thoroughly understands Lead and Silver Ore Smelting, and the Concentration of Poor Copper Ores into a Regulus. Excellent references.
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MINE AGENT WANTED.

WANTED, AN AGENT, FOR A GOOD LEAD MINE, IN WALES, which has already sold a large quantity of ore, and is now making regular monthly returns, and opening out still richer in depth.
A superior man, of considerable experience, and especially very energetic, will be required.
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Full particulars, stating age, former employment, &c., to "Wat," 51, Frederick-street, W.C.

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A MINING ENGINEER is open to an ENGAGEMENT. Considerable experience in Portugal, Spain, Venezuela (Gold), &c. Well acquainted with Spanish, Management of Men. Plans, and Machinery.
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SPARGO'S GUIDE TO INVESTMENT. THE GUIDE FOR NOVEMBER contains full and authentic information on the present condition and the imediate prospect of all British Mines, together with trustworthy directions as to investment both in Progressive and Dividend Paying Mines.
Price 6d. post free.
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TRURO,
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Business in the leading Cornish Tin Mine Shares.

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30 Akankoo, £1⅛.	15 Hingston.	50 Pelyn Wood, 10s.
50 Almada, 6s.	100 Hoover Hill, 13s. 3d.	20 Ruby, £4 14s.
20 Birdseye, £1 18s. 9d.	100 I.X.L.	25 Richmond, £16¾.
30 Callao Bis, 14s. 3d.	50 Javali.	100 Rossa, 3s. 3d.
100 Chontales, 2s. 9d.	70 Kapanga, 9s. 6d.	50 Russell Uni., 9s.
25 Colar, 19s.	25 La Plata, £1 8s. 6d.	25 Rhodes Reef, 14s. 6d.
20 Colorado, £2 8s.	100 London and California.	50 Santa Cruz, 11s. 3d.
40 Devala Moyar, £1⅜.	50 Michipicoten, £1 6s 6	30 Silver Peak, 12s.
50 Don Pedro, 8s. 3d.	50 Mysore, £1 6s.	40 S. E. Wynaad, 25s.
10 Devon Consols, £8⅛.	50 Mysore Reefs, 10s.	20 Sierra Buttes, 34s. 6d.
50 Eberhardt, 15s. 3d.	15 Marke Valley.	50 South Indian, £1⅜.
50 Effuenta.	100 Nouveau Monde, 12s 6	20 Tambracherry, 20s.
35 E. Wh. Rose, 10s. (12s. 6d. paid).	25 New Quebrada, £4½.	50 Tankerville.
100 Exchequer.	100 Olathe, 12s. 6d.	50 Vir neberg, 21s.
15 East Caradon.	50 Ooregum, 11s.	25 W. Godolphin, £1½. call paid.
25 East Van, 17s.	50 Old Shepherds, 10s. (12s. 6d. paid.)	10 Wheal Grenville, £12½.
50 East Long Rake, £1 4 6	75 Port Phillip, 5s.	50 Yorke Peninsula, 5s.
25 Frontino, £4.	100 Potosi, 13s. 6d.	50 Yuba River, £1⅛.
100 Gold Coast, £1 11s.'	25 Pestarena, 5s. 9d.	50 Zaruma. 15s. prem.
20 Glenrock, £1 7s. 6d.		

EAST LONG RAKE.—Special business in these shares.
GOLD COAST recommended for an immediate rise.
As a speculation there are few mines in Cornwall offering such chances of success as PELYN WOOD.
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Speculative accounts opened in all leading Stocks of the day.

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At the Stock and Share Auction Company's sale, held this day at their sale-room, Crown Court Buildings, Old Broad-street, the following were amongst the prices obtained:—French Date Coffee shares, 13s.; Exchequer Gold and Silver Mines, 2s. 6d.; Old Shepherds Mines (1*l.* fully paid), 15s.; Royal Aquarium Summer and Winter Garden Society (5*l.* ordinary shares), 3*l.* 10s.; Junior Army and Navy Stores (1*l.* shares), 15s. 6d.; Grey's Brewery (10*l.* 6 per cent. debentures), 9*l.* 15s.; Bodidris Mining Company (1*l.* shares), 3s. 6d.: Llanrwst Lead Mining shares, 2s. 6d. Confederate Dollar Bonds, Great Western, Great Eastern, and North-Eastern Rails were dealt in at market prices.

The London and Provincial Fire Insurance Company's directors have appointed, as general manager, Mr. Henry Williams, and as foreign superintendent, Mr. F. A. Prout, both of the Commercial Union Assurance Company.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS &c.
1, ST MICHAEL'S ALLEY, CORNHILL, LONDON.

The riches of East Caradon were made from the caunter lode of South Caradon. The mine had been worked for some time at a heavy loss, when the management was taken to Salisbury, Mr. Fawcett, father of the Postmaster-General, being Chairman of the company. Capt. Jas. Seccombe was appointed agent, and he commenced his operations by driving the old adit south (whereas the others had driven it north), and he continued it for 40 fms. before cutting the lode. Then an engine shaft had to be sunk from the surface down to the 70, or 50 fms. under adit. During the progress of this work, which was heavy and a constant drain upon the adventurers, shares dropped to 6d. each. We ourselves bought lots at 1s. 6d. each for clients, and afterwards bid 50*l.* each for them. The lode seen at at the adit justified all the expenditure, but shareholders generally get impatient and irritated at calls, and sell out frequently when they should hold on, for when there is certain work to do to arrive at certain results money must be provided to do it. In the case of East Caradon 70 fms. from surface, the lode which had such a fine appearance at the adit was cut rich, and was opened upon for 100 fms. in length through a continuous course of ore worth 50*l.* per fm., and the mine soon paid 50,000*l.* in dividends. Twenty years ago we frequently visited the mine with the Chairman and the late Capt. Seccombe.

At Prince of Wales, where we paid good dividends from the copper lode some years ago, the great point is to cut the lode at the 102 fm. level, or 12 fms. deeper than it has ever been seen; but this cannot be done without money, and the speculation is well worth the outlay.

To understand weekly reports you must know the points of interest in a mine and follow them up closely. What the chief points of East Caradon are at the present moment we do not know.

The Purser of East Blue Hills writes us—"I was at the mine yesterday, and well pleased with the progress of stamping. We shall have 2 tons of tin by Wednesday, and I think from present prospects we ought to raise 1½ ton a month without further discoveries. We are now within 20 fms. of Pink lode, and another month ought to enable us to see it. We find occasional very rich stones of tin from it in clearing the adit."

The 72 tons of ore sampled at Prince of Wales assays 7½ per cent., and we hope it will bring 4*l.* per ton all round. There is a large stream of water issuing from the cross-cut towards the lode at the 102 which looks well.

We have stated before that the only contract at Langford was one for 1600*l.*, the price paid by us and charged to the company.

Ever since the introduction of the four weeks system into mining there are 13 paying months against twelve returning months in a year, and all agents get 13 months pay. Thus once in a year, generally in December, the extra month has to be charged in the accounts as it is now charged in Crebor, making five months against four months ore sales. We did not expect this till next month, but the extra pay having become due last week the committee had no alternative but to bring it in and charge it against a profit which would otherwise have been divided.

It appears by the report that Bratsberg returned from January to October, with only 20 men employed, about 800 tons of ore, valued at 10,000*l.* Now that the company have obtained possession, we presume more active operations will be commenced; especially as it is also stated that the ore ground opened is valued at 250,000*l.*

So far as tried the experiment on the refuse heaps at Langford is very successful and in a week or so we may have full particulars and results.

Kirk Michael is looking better. The 20 north, the agent writes, is worth 1½ ton of lead ore per fathom. The shaft is now down to the 30, and driving will soon be commenced at two new lodes.

At West Crebor the 30, east and west, are in course of driving on the lode, and the west end has good stones of yellow copper ore and mundic.

At Clementina (Gwydur Amalgamated) the 34 end is worth 1 ton of lead ore per fathom.

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Address, "The Mining Review Company," 116, Monroe-street, Chicago.

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Address, HERBERT C. JONES, Solicitor, 20 Masonic Hall, Toronto.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the MEDLYN MOOR MINING COMPANY.
Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 7th day of November instant, presented to the Vice-Warden of the Stannaries, by Arthur Champion Phillips Willyams, of Bodican, within the said Stannaries, Esquire, a shareholder of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Princes Hall in Truro, in the County of Cornwall, on Thursday, the 24th day of November instant, at 11 o'clock in the forenoon.
Any contributory or creditor of the company may appear at the hearing and oppose the same, providing he has given at least two clear day's notice to the petitioner or his solicitors of his intention to do so, such notice to be forthwith forwarded to Sir P. P. SMITH, Secretary of the Vice-Warden, Truro.
Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitors, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 22nd day of November instant, and notice thereof must, at the same time, be given to the petitioner or his solicitors.
HODGE, HOCKIN, AND MARRACK, Truro, Cornwall.
(Petitioners' Solicitors.)
Dated Truro, 9th November, 1881,

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Further particulars and plans may be obtained at the Company's Offices, No. 19, Finsbury Circus, London, where intending purchasers can treat for the claims.

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FOR SALE, a SMALL COLLIERY, near Wigan, owing to death of acting Proprietor. House (best) and steam coal; siding to railway; machinery, plant, and wagons in good working order.
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Also a 6 H.P. PORTABLE HOISTING ENGINE.
Apply to—
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ON SALE,—PUMPING ENGINE, inverted cylinder 60 inches diameter, 9 feet stroke, Cornish valves, cataract, wrought-iron main beam and cast-iron balance beam, box and weights. In first-class condition.
ONE PAIR COUPLED HORIZONTAL CONDENSING PUMPING ENGINES, cylinders 18¼ inches in diameter, and 4 feet stroke. Heavy fly-wheel, 14 ft.; pinion, 4 feet 2 inches; spur, 11 feet 9 inches; pumping crank, wood connecting rods, and two cast-iron L legs.
Apply to H. BRAMALL and Co., Sankey Brook Collieries, St. Helens, Lancashire.

THE WHEAL FORTUNE MINING COMPANY
(LIMITED).

A FEW SHARES AND DEBENTURES in this company may be obtained from the Secretary, Mr. J. N. DOWLING, No. 14, Temple-street, Birmingham, who will supply all particulars on application.

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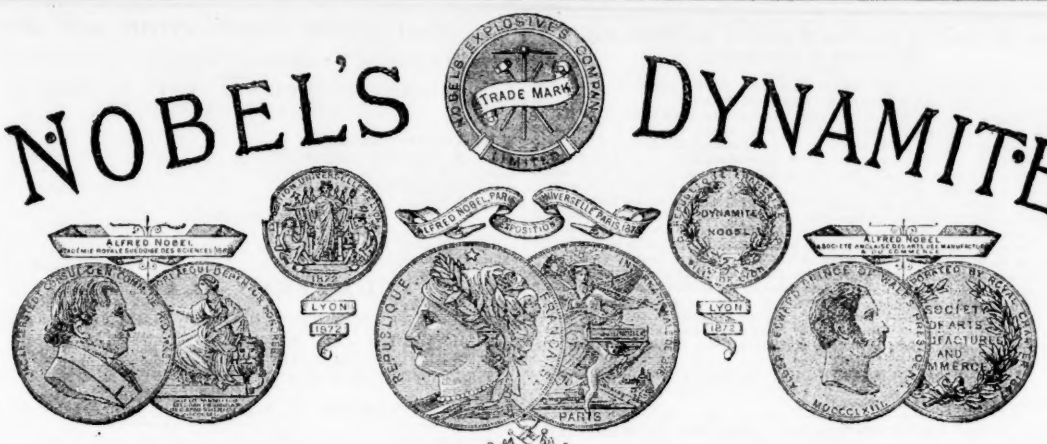

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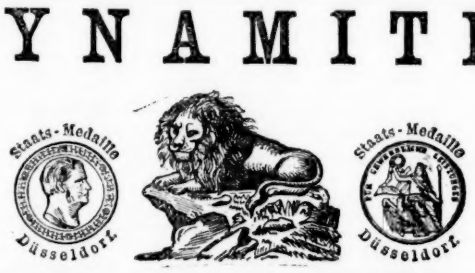
MANUFACTURED  AND SOLD BY

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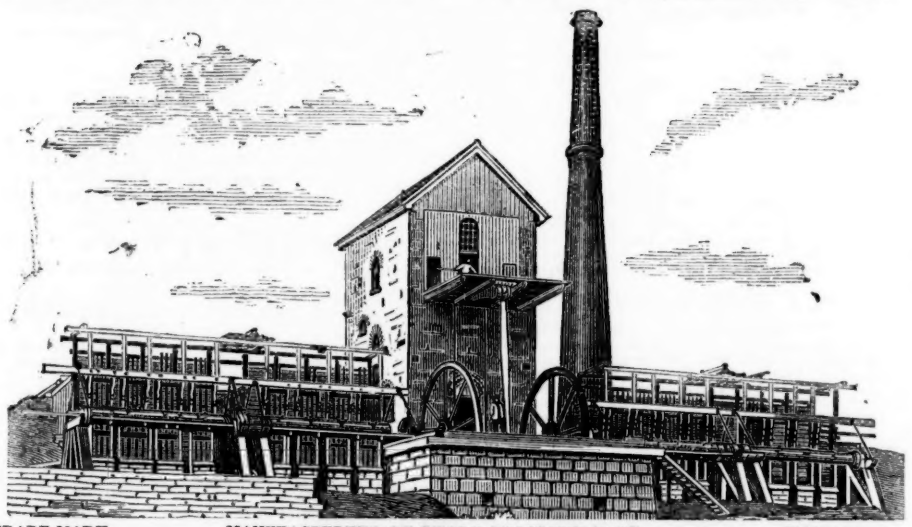

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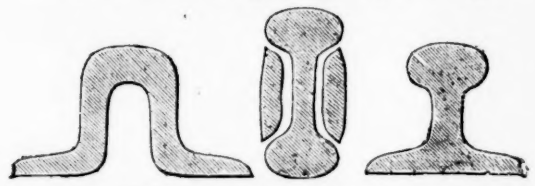

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60000	Frontino & Bolivia, *g*, New Gran.*†	2 0	0...	4½... 3¾ 4¼	0 8 0	0 2	0...Jan. 1881
200000	La Plata, *s-l*, Leadville†	2 0	0...	1½... 1¼ 1½	0 7 5	0 0	4...Aug. 1881
15000	Linares, *l*, Spain*†	3 0	0...	6 ... 5½ 6	18 17 10	0 3	0...Sept. 1881
66000	New Quebrada, *c*, Venezuela†	5 0	0...	4¼... 4¼ 4¾	0 5 6	0 3	0...July 1881
1000	Ditto, Debentures	100 0	0...	100... 95 100	6 per cent.		
3000	Oregon, *g*, Oregon, U.S. (pref. sh.)	4 0	0...	— ...	0 2 6	0 2	6...Dec. 1880
50000	Panulcillo, *c*, Chili*†	4 0	0...	5¼... 5¼ 5¾	0 16 9	0 3	6...Oct. 1881
25000	Pitangui,* *g*, Brazil (in. 6000 £1 pd).	0 10	0...	— ...	0 1 0	0 1	0...Sept. 1880
10000	Pontgibaud, *s-l*, France†	20 0	0...	12 ... 10 12	23 17 6	0 7	3...Dec. 1880
100200	Port Phillip, *g*, Clunes*† (£2 shares)	1 0	0...	3/8... ⅜ ⅜	1 14 2	0 0	10...Feb. 1881
54000	Richmond Consol., *s*, Nevada*†	5 0	0...	17¼...16½ 17	13 1 6	0 10	0...Nov. 1881
1858880	Rio Tinto,*c, Sp.Coup.Bds.,Huelva.	100 0	0...	102 ... 100 102	5 per cent.		...July 1880
225000	Ditto, shares	10 0	0...	27 ... 25 28	0 18 0	0 8	0...Nov. 1880
40000	Santa Barbara,* *g*, Brazil	0 10	0...	2 ... 1¾ 2	0 11 9	0 1	0...June 1880
120000	Scottish-Australian Mining Co.*†	1 0	0...	2 ... 1¾ 2	10 p. cent.		...Apr. 1881
80000	Ditto, New	0 10	0...	1 ... ¾ 1	10 p. cent.		...Apr. 1881
50000	Sentein,* *s-l, bl*, Ariège, France	1 0	0...	5/8... ½ 5/8	0 2 0	0 2	0...Jan. 1880
22500	Sierra Buttes, *g*, California*†	2 0	0...	1¾... 1½ 1¾	2 2 6	0 1	0...Apr. 1881
40625	Ditto, Plumas Eureka	2 0	0...	2¼... 2½ 2¾	2 13 0	0 3	0...Apr. 1881
100000	So. Indian,* *g*, Madras (fully pd.)†	1 0	0...	1⅜... 1¼ 1½	0 4 0	0 4	0...Aug. 1881
253000	St. John del Rey*†(£5 Stock and multiples dealt in)...			205 215	5 p.c. for half-year, Dec. 1880		
92566	Tharsis,* *c, sul*, Spain (31000 *s. 7l.* p.)†	10 0	0...	43½...43½ 44½	6 10 6	2 10 0	...June 1881
20000	Tolima,* *g, s*, Colombia	5 0	0...	— ...	1 16 6	0 4	9...Apr. 1881
25000	Victoria* (London), *g*, Australia	1 0	0...	— ...	0 13 10	0 0	8...Feb. 1881
15000	Western Andes, *s*, Colombia	5 0	0...	— ...	2 18 0	0 2	6...Aug. 1880
2100	W. Prussian (5500 pref. sh. £10 pd.)	10 0	0...	10 ... 9 10	4 2 0	0 8	0...Apr. 1881

§ Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.		Paid.	Last wk.	Clos pr.
30000	Alston United,* *l*, Cumberland	1 0	0...	— ...
12000	Assheton, *l*, Carnarvonshire*	5 0	0...	¾... ½ ¾
36000	Basset & Buller Cons.,* *c, t*, Illogan.	1 0	0...	— ...
11583	Bedford Unit.,* *c*, Tavis.(£1 liab.)...	0 8	0...	1⅜...1¾ 1¾
30000	Blackburnbanks & Gildersdale, *l* ...	0 5	0...	— ...
30000	Bodidris,* *l, bl*, Denbighshire	1 0	0...	⅞... ¾ ⅞
30000	British,* *s-l, bl*, Wrexham	1 0	0...	1½... 1 1⅛
20000	Bwlch United,* *l*, Cardigan	0 17	6...	3¼... 3 3¼
25000	Callington Consols*, *t*	2 0	0...	— ...
50000	Cambrian,* *s-l, c*, Cardiganshire	2 0	0...	— ...
50000	Carn Camborne, *t, c*, Camborne	1 0	0...	1 ... ¾ 1
20000	Carnarvon,* *c*, Carnarvonshire	1 0	0...	⅝... ½ ⅝
37500	Carnarvonshire Cons.,* *t*, Llanrwst.	2 0	0...	1 ... ⅞ 1
30000	Carpella Consols,* St. Stephens	1 0	0...	1¼... 1 1¼
6000	Cathedral Cons., *c, t*, Gwennap	0 10	0...	— ...
20000	Central Foxdale,* *l*, Isle of Man	1 17	6...	2¾... 2 2¼
25000	Coed-y-Fedw&Pant-y-Buarth,* *l* ...	1 0	0...	1¼... 1 1⅛
2450	Cook's Kitchen, *t*, Illogan†	30 14	9...	24¼...24½25½
15500	Court Grange United*, *s-l*	1 0	0...	— ...
6400	Crook Burn,* *l*, Cumberland	0 15	0...	½... 3/8 ½
14000	Crosswood Mining Lands, *l**	1 0	0...	1¼... ¾ 1¼
45000	D'Eresby Mountain, *l, bl*, Llanrwst.	0 10	0...	— ...
20000	Denbighshire Consolidated,* *l*	3 0	0...	— ...
12000	Derwent,* *l*, Durham	4 0	0...	1 ... ½ 1
50000	Devon,* *c, bl*, Tavistock	1 0	0...	— ...
60000	Devon Friendship,* *c, ars*, Tavistock	1 0	0...	1 ... ⅜ 1⅛
12000	Devon Great United*(21. shares) ...	1 5	0...	1½... ⅞ 1⅛
50000	Drakewalls,* *t, c* Calstock	1 0	0...	¾... ½ ¾
10000	Dubby Syke, *l*, Durham*	1 0	0...	5s... 4s. 5s.
12000	East Blue Hills, *t*, St. Agnes	0 5	0...	3/8... ½ 5/8
6000	East Botallack, *t*, St. Just	0 8	0...	1¾...1¾ 1¾
6144	East Caradon, *c*, St. Cleer†	4 3	6...	¾... ½ ¾
4000	East Chiverton, *l*, Perranzabuloe ...	10 4	9...	2 ...1½ 2
30000	E. Craven Moor,* *l*. Pateley Bridge	1 0	0...	⅞... 5/8 ⅞
12000	East Crebor, *c*, Tavistock	0 11	6...	¾... ⅛ ¾
15900	East Devon Cons.,* *c*, Buckfastligh.	2 0	0...	3 ... 2½ 3
30000	East Herodsfoot, *s-l*, Liskeard	1 0	0...	1⅛... 1 1⅛
20000	East Long Rake,* *l*, Wales	1 0	0...	1¼...1⅛ 1¼
21000	East Roman Gravels,* *l*, Salop	0 15	0...	⅞... ⅞ 1⅛
18000	East Van, *l*, Llanidloes*	5 0	0...	1½... 1 1½
2048	East Wheal Lovell, *t*, Helston	15 13	6...	2½... 2 2½
100000	East Wheal Rose,* *s-l*, Newlyn East	0 10	0...	— ...
12000	Gawton,* *c*, Tavistock (2*l*. shares)...	1 16	0...	⅞... 5/8 ⅞
14000	Glenroy,* *s-l*, Isle of Man	4 0	0...	5/8... 3/8 ½
30000	Gobbett,* *t*, Dartmoor	1 0	0...	1¼...1⅛ 1¼
10000	Goddards,* *l, b*, Carnarvon	1 0	0...	1⅛... 1 1¼
32000	Goginan,* *l*, Cardiganshire	1 0	0...	1¾... 1 1¾
25000	Goodevere, *t*, St. Cleer	1 0	0...	1¾...1⅛ 1⅜
20000	Great Dyliffe* (10000 sh. issued)	1 0	0...	1⅛... ⅞ 1⅛
12000	Great Holway,* *l*, Flintshire	5 0	0...	5½... 5 5½
100000	Great Polgooth United,* *t*	1 0	0...	1¾... ¾ 1
6000	Great West Chiverton, *l*, St. Agnes.	0 5	0...	3/8... ⅜ 3/8
10000	Gwern-y-Mynydd,* *s-l*, Flint(pref.)	4 0	0...	— ...
70000	Gwydyr Amal.* *l, bl*, Carnarvon	1 0	0...	— ...
12000	Herodsfoot, *l*, near Liskeard†	0 10	9...	5/8... 3/8 5/8
18000	Hingston Down, *c*, Calstock*†	0 12	0...	1⅜...1¼ 1⅜
20000	Kirkmichael,* *l* (2000 unissued)	1 0	0...	1⅛... 1 1⅛
6000	Killifreth, *t*, Chacewater	4 1	6...	1½...1⅜ 1½
25000	Kit Hill Gt. Cons.* *c, ars-m*, (2*l*. sh.)	0 15	0...	⅞... 5/8 ⅞
15000	Lady Ann,* *s-l*, Llanarmon	1 0	0...	1 ... 1 1⅛
30000	Lady Ashburton,* *s*, Callington	1 0	0...	1⅜...1⅜ 1⅜
15000	Lady Bertha,* *c*, Tavistock	1 0	0...	— ...
25000	Langford,* *s, c*, Callington	0 10	0...	1 ... ½ 1
2500	Levant, *c, t*, St. Just	11 10	0...	1⅝... 1¼ 1⅝
15000	Llandegla,* *l*, Wales	1 0	0...	1⅛... ⅞ 1⅛
10000	Lomax,* *s-l*, Helston	1 0	0...	1¼... 1 1¼
5120	Lovell, *t*, Wendron	0 16	0...	1½...1¼ 1½
9000	Marke Valley, *c*, Linkinhorne†	6 8	6...	1¼... 1 1¼
6000	Medlyn Moor, *t*, Wendron	3 15	10...	— ...
28000	Mid-Devon,* *c* (& 17000, 3s. 4d. pd.)	0 6	8...	— ...
20000	Mona Consols,* *c*, Anglesea	1 0	0...	1⅜...1⅛ 1⅜
15000	Monkstown,* *man*, Devon	2 0	0...	2⅜...2⅜ 2⅝
20000	Mostyn Consols,* *s-l*, Flint	1 0	0...	— ...
10000	Mynydd Gorddu, *l*, Cardigan*	4 0	0...	4 ... 3½ 4
12000	Morfa Du, *z, g, s*, Anglesea*	1 0	0...	⅞... 5/8 ⅞
80000	Mounts Bay,* *c, t*, Breage	0 10	0...	3/8 ... ⅛ 3/8
6144	Mount Carbis, *t, c*, Redruth	1 0	0...	3½...3¼ 3½
2400	New Cook's Kitchen, *t*, Illogan	8 1	0...	5½... 5 5½
8000	New Dolcoath, *t, c*, Camborne*	3 0	0...	— ...
10000	New Holmbush,* *t, c*, Callington	2 0	0...	— ...
6000	New Kitty, *t*, St. Agnes	0 10	0...	2½...1⅞ 2⅛
12000	New Penrose,* *t, c*, Helston	1 0	0...	1¼...1⅛ 1¼
3500	New Tincroft,* *t*, Lelant	6 0	0...	— ...
2000	New Trumpet, *t*, Wendron	0 10	0...	1¼ ... 1 1⅛
12000	New West Caradon, *c*, Liskeard	0 2	6...	⅜... 3/8 5/8
3000	New Wheal Peevor, *t*, Redruth	0 10	0...	⅛... ⅛ ⅛
35000	New Wye Valley, *l*, Montgomery.*	1 0	0...	1¼... ¾ 1¼
20000	North Alfred, *c*, Phillack	0 10	0...	1⅜...1⅛ 1⅜
5328	North Busy, *t, c*, Blackwater	0 15	6...	1 ... ¾ ⅞

NON-DIVIDEND MINES—*continued.*

Shares.		Paid.	Last wk.	Clos pr.
10000	N. D'Eresby Mount.,* *l, bl*, Carnarv.	1 0	0...	1⅛... 1 1¼
25000	North Goginan,* *l*, Cardiganshire...	1 0	0...	1⅛... 1 1¼
6400	North Green Hurth,* (34.0 *l.* pd.).	0 2	6...	5/8 ... ⅜ 1
12000	North Herodsfoot, *l*, Liskeard	0 8	6...	5/8... ½ 5/8
50000	North Molton,* *c, ma, t*, Devon	1 0	0...	— ...
6000	North Penstruthal, *t, c*, Gwennap...	1 14	6...	¾... ¼ ¾
2936	North Treskerby, *c*, St. Agnes	8 17	10...	— ...
8000	Northern,* *l*, Durham	1 0	0...	1⅛... 1 1⅛
40000	Okel Tor,* *t, c, a*, Calstock	1 0	0...	1½... 1 1½
80000	Old Shepherds *s-l*, Cornwall	0 10	0...	— ...
12000	Pandora,* *l*, Carnarvon	2 0	0...	⅞... ¾ 1
11612	Pant-y-Mwyn,* *l*, Mold	2 0	0...	2⅛...1⅞ 2⅛
45000	Parys Corporation,* *c*, Anglesea ...	1 0	0...	⅞... 5/8 ⅞
7500	Pateley Bridge, *l*, Yorkshire	1 0	0...	— ...
6000	Pedn-an-drea, *t*, Redruth	2 7	0...	4 ... 3⅛ 3⅛
12000	Pelyn Wood, *c*, Lanivery	0 5	6...	½... ⅜ ½
600	Pendarves United, *c*, Camborne	8 0	0...	— ...
30000	Penhale and Barton, *t*, St. Columb	1 0	0...	— ...
12000	Pen-yr-Orsedd,* *l*, Flintshire	1 0	0...	1⅛... 1 1⅛
15000	Perran Consols,* *s-l*	1 0	0...	1⅛... 1 1⅛
100000	Pioneer,* *var.* Wales	1 0	0...	1⅛... 1 1⅛
10000	Polrose, *t*, Cornwall	0 13	6...	¾... 5/8 ¾
10000	Port Nigel,* *s-l*, Carnarvonshire ...	2 0	0...	2 ...1½ 2
6000	Prince Royal, *t, c, s-l*, St. Agnes ...	1 0	6...	1⅛...1⅛ 1⅛
12000	Prince of Wales, *c, s*, Calstock	0 11	6...	¾... ½ ¾
15000	Royalton,* *t*, St. Columb	1 0	0...	1⅛... 1 1⅛
38000	Russell United,* *c*, Tavistock	0 15	0...	⅞... 5/8 1⅛
30000	Silver Hill,* Callington	0 10	0...	⅞... 5/8 1⅛
50000	Sinclair,* *l, bl*, Whitford	1 0	0...	5/8... ½ 5/8
40000	Sortridge,* *c*, Horrabridge	1 0	0...	1¼... 1 1¼
6000	South Carbis, *t, c*, Redruth	0 10	0...	1 ... ¾ 1
35000	So. Devon Unit.,* *c*, Buckfastleigh.	0 10	0...	1½...1¼ 1½
5000	South Dolcoath, *c, t*, Illogan	0 12	0...	2 ...1¼ 2
6000	South Penstruthal, *t, c*, Gwennap...	1 12	6...	5/8... ½ 5/8
6000	South Tolcarne, *t, c*, Camborne	4 6	6...	½... ⅜ ½
40000	South Wheal Crebor*, *c*, Tavistock..	1 0	0...	2½...1½ 1¾
2043	South Wheal Crofty, *c*, Illogan	19 14	6...	1 ... ¾ 1
40000	Tamar, *s-l*, Bearalston*	1 0	0...	10½...9½ 10
110000	Tankerville Gt. Consols, *l*, Salop*.	0 15	0...	1⅛...1¼ 1¼
6400	Teesdale,* *l*, Durham (pref.)	1 0	0...	5/8... 3/8 ⅝
20000	Tin Hill,* *t*, St. Stephens..	1 0	0...	¾... ¼ ¾
10000	Temple,* *l*, Cardigan	1 0	0...	— ...
12000	Trevince Consols, *t, c*, Gwennap ...	0 5	0...	1⅛... 1 1⅛
6000	Trugo, *c*, St. Columb	0 8	0...	1⅛...1⅛ 1⅛
10000	Tyn-y-Fron,* *l*, Cardiganshire	1 0	0...	1⅛... 1 1⅛
35500	Un.Van & Glyn,* *l*, (& 17500 pref. sh)	1 0	0...	1⅛... 1 1⅛
1000	Vaughan,* *l*, Cardiganshire	10 0	0...	3/8... ¼ 3/8
18000	Victor,* *l*, Cilcen, Flintshire	0 14	0...	— ...
15000	Vincent,* *t*, Altarnum	1 0	0...	½... ¼ ½
20000	Walkham United,* *t, c*, Tavistock..	1 0	0...	— ...
12000	West Assheton, *l*, Carnarvon	1 0	0...	2 ...1¼ 2
12000	West Caradon, *c*, St. Cleer	0 6	9...	1¼... 1 1¼
3000	W. Craven Moor, *l*, Pateley Bridge*	10 0	0...	— ...
12000	West Crebor, *c*, Tavistock	0 5	0...	½... 3/8 ½
10240	West Devon Consols, *c*, Calstock ...	1 0	0...	1½... 1 1½
10000	West Godolphin, *t, c*, Breage	0 17	6...	2 ... 1¾ 2
6000	West Kitty, *t*, St. Agnes	0 12	0...	9¾...8¼ 8¾
20000	W. Lisburne,* *l* (1*l*. sh.) Cardigan..	1 0	0...	1¼... 1 1¼
3000	West Mary Ann, *l*, Menheniot	1 13	0...	1 ... ⅞ 1
20000	W. Pateley Bridge, *l*, Yorkshire	1 0	0...	— ...
12000	West Phœnix, *t, c*, Linkinhorne	0 16	2...	1⅛... ⅞ 1⅛
6000	West Polbreen,* *t, c*, St. Agnes	0 2	0...	1⅛...1⅛ 1⅛
5190	West Poldice, St. Day†	6 0	0...	6½... 5½ 6
10000	West Vor,* *t*, Helston	2 0	0...	2 ...1½ 2
2048	West Wheal Frances, *t*, Illogan† ...	30 1	3...	18 ...17½ 18
3000	West Wheal Peevor, *t*, Redruth ...	3 0	6...	14 ...12½ 13
12000	West Wye Valley,* *l*, Montgomery.	3 0	0...	— ...
6000	Wheal Agar, *c*, Illogan†	14 6	0...	14½...14 14½
6144	Wheal Basset, *c*, Illogan†	6 1	0...	5½... 5 5½
3000	Wheal Boys, *t*, Redruth	0 16	0...	2½... 2 2½
12000	Wheal Coates United,* *t*, St. Agnes	0 17	6...	1⅞...1½ 1⅞
2585	W.Comf., & No. Tres., *t, c*, Gwennap	2 2	0...	2½... 2 2½
50000	Wheal Elizabeth,* *t*, Cornwall	1 0	0...	— ...
5000	W. Fortune,* *s, c, ars*, Harrowbarrow	1 0	0...	3 ... 2¾ 3
15000	Wheal George,* *l, bl*, Carnarvon ...	1 0	0...	3 ... 2¾ 3
12283	Wheal Jane, *t*, Kea†	1 10	8...	1⅝...1¼ 1½
12000	Wheal Jewell, *c*, St. Hilary	0 18	0...	¾... ½ 5/8
25000	Wh. Hony and Trelawny, *s-l*, Lisk.	2 0	0...	3 ...2½ 3
12000	Wheal Lusky, *t*, Callington	0 1	3...	½... ¾ ⅝
2000	Wheal Owles, *t*, St. Just†	7 3	0...	— ...
6000	Wh. Prussia, & Cardrew, *t, c*, Rdrth	2 0	0...	1⅜...1⅜ 1⅜
6000	Wheal Sisters, *t*, Lelant	3 10	0...	1½...1¼ 1½
4096	Wheal Uny, *t, c*, Redruth	15 16	0...	3¼... 3 3¼
4000	Ystwith,* *l*, Cardigan	1 0	0...	⅞... ⅝ ⅞

bl, blende; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *sl*, slate; *s-l*, silver-lead; *t*, tin; *z*, zinc; *i*, iron; *a*, arsenic.
* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.		Paid.	Clos. pr.
67 00	Akankoo,* *g*, Gold Coast	0 5	0...
64880	Anglo-African,*d, Kimberley,†	2 0	0... 2½ 3
12000	Arendal, *c*, Norway	4 0	0... 2½ 3
1 0000	Asia Minor,* *s-l*, Lidjessy, Sivas	0 7	6...
30000	Bratsberg,* *c*, Norway	2 0	0...
40000	Brazilian, *g*,* Brazil	1 0	0... 1 1¼
200000	British Australian,* *g*, N. So. Wales	1 0	0...
10000	Buena Ventura,* *l*, Spain (fy.pd)...	2 0	0...
130000	California,* *g*, Colorado	1 0	0... ¾ 1
130000	Callao Bis,*g, Venezuela	1 0	0...
15000	Canada,* *g*	1 0	0...
82500	Canadian, *c, sul*,* Canada†	4 0	0... 1⅜ 1⅝
23000	Central Jagersfontein Diamond*...	5 0	0... 2¾ 2¾
100000	Cherambadi (Wynaad) District,* *g*.	1 0	0...
500000	Chile,* *c*, Venezuela	1 0	0...
06505	Chontales, *g, s*, Nicar.*† (98000 iss)	1 0	0... 1/16 3/16
75000	Colar,* *g*, Mysore	0 10	0...
75000	Colombian Hydraulic, *g*, Colombia	1 0	0...
165000	Colorado United, *s-l* Colorado*†‡..	5 0	0... 2⅜ 2⅝
100000	Cootacovil,* *g*, Wynaad	1 0	0...
120000	Devala Central,* *g*, Wynaad	1 0	0... ½ ¾
200000	Devala Moyar,* *g*, Wynaad†	1 0	0... 1 1¼
75000	Devala Provident,* *g*, Wynaad† ...	0 10	0... 1/16 3/16
50000	Dieu Donné,* *g*, Surinam	0 12	6...
100000	Dingley Dell,* *g*, Devala, India ...	1 0	0...
100000	Don Pedro North del Rey*	1 0	0... ¼ ½
205168	Eberhardt, *s*, Nevada*†	1 0	0... ⅝ ⅞
20000	English Australian, *g*, Victoria* ...	1 0	0... ⅞ 1⅛